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ABSTRACT

The study of PASS 2 (program analysis of service systems) had two aims: to investigate the internal statistical properties of the evaluation instrument and to compare the relative quality (as measured by PASS 2) of services to the mentally retarded delivered in community versus institutional settings, to different age groups, in several human service fields, on the single service versus service system level, and in Canada versus the United States. The 102 service system evaluations comprising the nonrandom, accidental sample were those that were available to the investigator. Data analysis included the computation of basic descriptive statistics, correlation matrixes, internal consistency reliability coefficients, factor analysis, and stepwise regression. Major findings included that mean service quality was only modestly above the minimally acceptable level; the more important, serious, and universal the aspect of service quality, the less well was it being attained in practice; and an eight-item short form of PASS 2 was derived by means of stepwise regression. Results tended to support the prior conceptualization underlying both PASS 2 and the forthcoming PASS 3 without major exception. Several concluding suggestions were made concerning outstanding PASS research needs. (Tables with statistical data as well as a sample PASS checklist and score sheet are provided.) (Author/SBH)

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ASSESSING HUMAN SERVICE QUALITY WITH PASS 2: An empirical analysis of 102 service program evaluations

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Robert J. Flynn

July, 1975

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PREFACE

PASS is a recently developed evaluation instrument for objectively quantifying the quality of a wide range of human service projects, programs, agencies, and systems. PASS specifies and applies universal human service principles and issues, and thus has applicability for purposes of evaluation and accountability to most human problem and human service fields. Services whose quality might be assessed include child development and special education programs, treatment and counselling centres, sheltered workshops, community group homes and hostels, residential institutions, hospitals, psychiatric day centres, services to elderly citizens, etc. The present paper is a study of the second edition (1973) of PASS. In early 1975, a third edition of the instrument (PASS 3) will be published.

I am indebted to several people for making PASS 2 service program evaluations available: Bill Bronston, John Elias, Linda Glenn, Ellen Horn, Sandra Leppan, Aldred Neufeldt, and Wolf Wolfensberger. Michael Hogan and Wolf Wolfensberger offered useful comments during the writing of an initial draft of this paper, and the present revised version has greatly benefited from the often detailed suggestions of John Elias, Irv Guyett, Sandra Leppan, and Paul Salomone. I wish to thank these individuals for their assistance, while retaining full responsibility for any weaknesses that remain in the paper.

Robert J. Flynn
November, 1974

ABSTRACT

This study of PASS 2* had two aims: (1) methodological: to investigate the internal statistical properties of the evaluation instrument, and (2) substantive: to compare the relative quality, as measured by PASS 2, of services delivered in community versus institutional settings, to different age groups, in several human service fields, on the single service versus service system level, and in Canada versus the United States. The 102 service evaluations comprising the non-random, accidental sample were those that were available to the investigator. Data analysis included the computation of basic descriptive statistics, correlation matrices, internal consistency reliability coefficients, factor analysis, and stepwise regression.

Major findings included the following:

1. Mean service quality (229 out of a possible 1000 PASS points) was only modestly above the minimally acceptable level of 0.

2. The more important, serious, and universal the aspect of service quality, the less well was it being attained in practice. ($r = -.41$; $p < .01$).

3. Pearson r and Kendall tau coefficients were virtually identical, indicating that the non-linear scoring system used in PASS presents no special problems for data analysis.

4. Almost all the intercorrelations among the 41 basic PASS ratings, and with Total PASS Score, were as anticipated, although several improvements for the forthcoming third edition (PASS 3) were suggested.

5. Internal consistency reliability coefficients of .92 (Spearman-Brown formula) and .89 (Cronbach's alpha) were estimated.

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* Wolfensberger, W., & Glenn, L. Program analysis of service systems: A method for the quantitative evaluation of human services. Volume I: Handbook. Volume II: Field Manual. (2nd ed.) Toronto: National Institute on Mental Retardation, 1973.

6. Factor analysis of the 41 basic PASS ratings yielded 12 interpretable orthogonal factors, while factor analysis of the 14 non-redundant aggregated PASS variables resulted in 4 interpretable orthogonal dimensions of service quality.

7. Although small sub-sample N's made a good deal of caution essential in interpreting inter-service comparisons, these comparisons suggested that:

   a. Community services are considerably better in quality than institutional services (mean PASS score of 259 versus -158; $p < .001$).

   b. Service quality is inversely related to the age of clients served.

   c. Mental retardation services (mean PASS score of 239) rank higher than mental health services (130) or services in aging (173).

   d. Among service sub-systems, developmental (children's) services score highest (321 for school-based educational programs, 299 for preschool programs), followed by counselling services (303), community residential services (294), vocational services (162), recreation and camp programs (85), and institutional residential programs (-280).

   e. Canadian services appear to be of somewhat higher average quality (271) than U.S. programs (202), although this difference in mean PASS scores was not statistically significant ($p < .20$).

8. An 8-item "short form" of PASS 2 was derived by means of stepwise regression. It consisted of relatively visible, simple ratings, and had a multiple correlation of .86 with Total PASS Score.

Overall, the results emerging from this study were strongly encouraging, and tended to support the prior conceptualization underlying both PASS 2 and the forthcoming PASS 3 without major exception. Several concluding suggestions were made concerning outstanding PASS research needs.

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PURPOSE

The present paper had two principal aims:

1. methodological - to investigate the internal statistical properties of the second edition of PASS (PASS 2; Wolfensberger and Glenn, 1973); and,

2. substantive - to compare the relative quality, as measured by PASS 2, of services delivered: in community and institutional settings, to different age groups, in several human service fields, in different service sub-systems, on the single service versus service system level, and in Canada and the United States.

The second edition of PASS (PASS 2) has been in use for slightly more than a year, and to date has been studied by some 2000 persons in close to 40 introductory and advanced PASS training workshops held in Canada (Ontario, Saskatchewan, Alberta, British Columbia) and the United States (New York, Nebraska, Pennsylvania, California). Workshop participants, all of whom have shared an interest in human service quality evaluation, have included mainly administrative leaders, direct service workers, and graduate and undergraduate students. Recently, the number of consumers (especially parents of handicapped children) enrolling in PASS training workshops has increased.

Since its publication in May, 1973, PASS 2 has been used to evaluate the quality of an estimated 300 human service projects (mainly individual, direct-service programs, but including several multi-component projects and even complete service systems). Most of these evaluations have taken place within the context of introductory PASS training workshops, but many have consisted of bona fide assessments carried out at the request of the agencies involved.

The growth of PASS as a method for quantitatively assessing the quality of human services has thus been steady during the past year and a half. A third edition of PASS (PASS 3) has been prepared and field tested over the past several months, and will be published in early 1975. This new, revised version will constitute a refinement rather than a radical recasting of PASS 2. The major changes will include an expansion from 41 to 50 in the number of "ratings" (individual program aspects assessed), and frequent clarifications of meaning and focus. However, PASS 3 will retain much the same content as PASS 2, and a highly similar scoring system. The maximum attainable score will remain +1000 points, the minimally acceptable level will remain at 0; and the lowest attainable score will be -947.

The present study seemed timely for two principal reasons:

1. The preparation of PASS 3 called for a statistical analysis of service evaluations carried out with PASS 2, and incorporation of relevant findings into the revised instrument.

2. Further improvements and refinements in future editions of PASS will be maximized by the growth and development of a tradition of research on the evaluation instrument. It is hoped that the present study will serve to assist and stimulate others to undertake research on the forthcoming PASS 3 and its undoubted successors.

METHOD

Data Collection

The 102 service program evaluations constituting the non-random, accidental sample for this study represent about a third of the estimated 300 PASS 2 evaluations carried out to date. In June, 1974, an intensive search at the National Institute on Mental Retardation (NIMR) succeeded in locating an initial group of 62 completed PASS 2 evaluations for which the respective score sheets contained no missing data. In order to maximize sample size, a letter was sent out on July 3, 1974 to ten individuals in Canada and the United States deemed likely to have additional PASS 2 evaluations in their possession. By the time of the cutoff date, August 2, 1974, 40 more score sheets containing no missing data had been mailed to the author at NIMR[1].

PASS 2 score sheets with incomplete information were excluded from the sample, leaving a total of 102 evaluations on which data analysis was based. Almost all were non-duplicated assessments of different service programs, different components of the same larger project, or different service systems. Only two represented evaluations of the same service by different PASS teams (see below, "reliability").

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1 I wish to thank Bill Bronston, John Elias, Linda Glenn, Ellen Horn, Sandra Leppan, Aldred Neufeldt, and Wolf Wolfensberger for their cooperation in this regard. Readers with PASS 2 evaluations in their possession that are not likely to have come to my attention via the above-named persons are encouraged to send me c/o NIMR xerox copies of the score sheets (containing no missing scores) together with a brief note indicating for each score-sheet the date of the evaluation; exact project title; city and province/state; the precise nature of the service (e.g. vocational services centre/integrated primary school classroom/group home/large state institution); and the clientele(s) served (e.g. mentally retarded adults/elderly women/physically handicapped and emotionally disturbed children). An enlarged data base would permit extension of some of the analyses contained in the present paper.

Characteristics of the Sample

Table 1 shows the major characteristics of the sample of 102 service programs/projects/systems evaluated with PASS 2. The majority were community services (91%). Half served adults (49%), a third served children and adolescents (35%), only four percent served elderly clients, and twelve percent served clients from several age groupings.

The majority of the programs evaluated were in the field of mental retardation (68%), eleven percent were in mental health, six percent constituted deviancy juxtaposition programs (i.e. the same service program served juxtaposed "deviancy groupings"--two or more groups of clients with different handicaps, such as mental retardation and physical handicap), four percent were in aging, and the others were in delinquency, cerebral palsy, physical handicap, poverty, or else undetermined or not applicable.

In terms of the service sub-systems in which the programs were located, thirty-nine percent were residential (including thirty-five community, and five institutional) programs, twenty-two percent were developmental services (child development/ preschool, or school-based), twenty-two percent were vocational in nature, eight percent were family resource services (including counselling to individuals and families, and recreation and camps), and seven percent overlapped two or more service sub-systems. Ninety-six percent of the programs were of a direct service nature; only four percent were consolidated assessments of total service systems. Finally, thirty-nine percent of the service projects were located in Canada, and sixty-one percent in the United States.

Data Analysis

The scores from the 102 PASS 2 evaluations were transferred to IBM punched cards, and analyzed at the York-Ryerson Computing Centre facilities on the York University campus, Toronto, Ontario. Almost all of the analysis was carried out using the SPSS family of computer programs (Nie, Bent, and Hull, 1970).

Data analysis included the following procedures:

a. Basic descriptive statistics were computed for each of the 64 PASS 2 variables (41 basic ratings; 20 intermediate aggregated variables; and 3 overall aggregated variables) that had been entered on the PASS 2 score sheet (Appendix), in order to establish some approximate overall norms of human service quality.

TABLE 1

CHARACTERISTICS OF SAMPLE OF 102 SERVICE

PROGRAMS & PROJECTS EVALUATED WITH PASS II

	N	%
1 Service Setting Location		
Community	93	91
Institution	6	6
Undetermined/Not reported	3	3
Total	102	100
2 Age Group Served		
Preschool children	8	8
Schoolaged children & adolescents	28	27
Adults	50	49
Elderly	4	4
Mixed age groups	12	12
Total	102	100
3 Human Service Field		
Mental retardation	70	68
Mental health	11	11
Aging	4	4
Delinquency	3	3
Cerebral palsy	2	2
Physical handicap	1	1
Poverty	1	1
Juxtaposed deviancy groupings	6	6
Undetermined/Not reported	2	2
Not applicable	2	2
Total	102	100
4 Service Sub-System		
Developmental services		
Child development & preschool	10	9
School	13	13
Residential services	40	39
Vocational services	22	22
Family resource services		
Counseling	4	4
Recreation & camps	4	4
Mixed	7	7
Not applicable	2	2
Total	102	100
5 Service Level		
Direct service programs	98	96
Entire service systems	4	4
Total	102	100
6 Country		
Canada	40	39
United States	62	61
Total	102	100

b. Matrices of intercorrelations among the 64 variables were generated, to investigate the pattern of relationships among the different PASS 2 variables, especially the 41 basic ratings. Matrices of Pearson r and Kendall tau coefficients were computed and compared, to discover whether the non-linear system of weights used to translate the 41 basic ratings from qualitative PASS team judgments into quantitative measures of service quality (Wolfensberger and Glenn, 1973, PASS Handbook, pp. 8-11; see also checklist and score sheet, Appendix) introduced any significant distortion into the pattern of intercorrelations among the variables.

c. Reliability coefficients were computed, using the Spearman-Brown formula and Cronbach's coefficient alpha (Ley, 1972), to estimate the overall internal consistency of the 41 basic PASS ratings.

d. Factor analysis was used to examine the dimensionality of service quality, as measured by PASS.

e. Mean program scores on major PASS variables were calculated by service setting location (community versus institution), by age group served, by human service field, by service sub-system, and by country, in order to compare service quality among important sample sub-groups, and to examine the power of PASS 2 to discriminate between them (criterion-related validity).

f. Finally, stepwise regression was used to investigate whether a PASS "short form" could be derived, possessing the desirable properties of being brief, of being composed of relatively simple and more obvious ratings, and of correlating very highly with the Total PASS Score based on all 41 ratings.

It must be stressed that the relatively small number of PASS 2 evaluations in the sample precluded carrying out refined breakdowns or using statistical controls, and led to a generally restricted and conservative use of tests of statistical significance. The reader should be prepared to interpret the results with the degree of caution appropriate to small-sample, exploratory studies.

RESULTS

Some Preliminary Norms of Service Quality

Table 2 presents the basic descriptive statistics (mean, median, mode, standard deviation, skewness, minimum and maximum scores attained, and range) for the total sample, on each of the 64 PASS 2 variables. On the variable of greatest interest, Total PASS Score, mean service quality achievement was 228.9 (median 224.5; minimum -399; maximum +853; range 1252). This mean score of 229 signifies an average level of attainment only modestly above the minimally acceptable, when viewed in light of the following service quality benchmarks (Wolfensberger and Glenn, PASS Handbook, 1973):

+1000 is the highest possible score attainable on PASS 2 by any human service program. Such a score would reflect ideal service quality, in terms of the criteria of normalization/integration and adaptive administration embodied in the instrument.

+716 is the score reflecting the level of quality that all human services are expected to achieve.

0 signifies a minimally acceptable level of service quality.

-849 is the lowest possible score attainable; a program receiving this score would reflect grossly unacceptable service performance.

In addition, it should be noted that the present sample was, to some degree, self-selected. Programs of agencies accepting or offering to serve as PASS training workshop sites are, in all likelihood, of higher rather than equal or inferior quality, compared to service programs in general. Such a self-selection factor would produce an observed mean PASS score (229) that is somewhat higher than the true population mean.

Table 3 allows an easier comparison among the 64 variables, in terms of mean quality attained. Each variable has been converted to a common metric--mean score expressed as a percentage of the maximum attainable. The mean Total PASS Score of 229 represents an overall service quality that is twenty-three percent of the maximum possible. Rather revealingly, those ratings most relevant to the physical facility fare relatively much better (the mean Facility Score is 57, forty-four percent of maximum) than those contributing primarily to the service program (the mean Program Score is 173, only twenty percent of the maximum).

TABLE 2

MEAN, MEDIAN, MODE, STANDARD DEVIATION, SKEWNESS,
MINIMUM, MAXIMUM, AND RANGE FOR 64 PASS VARIABLES

(N=102)

Variable Name	Mean	Median	Mode	SD	Skew	Min	Max	Range
*1 Proximity	17.0	19.5	24.0	16.8	-1.6	-30	30	60
*2 Access	5.6	6.1	8.0	5.1	-1.4	- 8	10	18
*3 Physical context	4.8	6.2	16.0	12.6	-0.4	-16	20	36
4 Size or dispersal	9.1	17.2	28.0	27.8	-0.7	-35	35	70
5 Program & facility labels	7.2	7.3	0.0	9.9	-0.6	-20	20	40
*6 Building perception	7.8	8.3	0.0	10.3	-0.5	-16	20	36
7 Deviant staff contact	18.8	19.4	24.0	15.2	-1.9	-30	30	60
8 Other deviant contact	-18.1	-29.8	-30.0	19.3	1.3	-30	30	60
9 Soc integ social opportunities	-5.5	-5.6	0.0	13.7	0.1	-30	24	54
*10 Facilities, e d & appointments	7.5	7.8	12.0	7.1	-0.7	-12	15	27
11 Possessions	11.2	11.2	16.0	8.4	-0.8	-16	20	36
12 Age-app labels & forms address	2.6	0.8	0.0	10.9	0.3	-12	20	32
13 Activities, routines & rhythms	8.1	9.5	0.0	17.7	-0.7	-30	30	60
14 Autonomy & rights	7.1	9.2	21.0	18.5	-0.9	-35	35	70
15 Sex behavior	5.8	4.1	0.0	8.4	0.3	-20	20	40
16 Age-app personal appearance	2.1	-2.1	0.0	12.3	0.9	-25	25	50
17 Culture-app labels & forms add	3.3	2.5	0.0	16.2	0.2	-30	30	60
18 Culture-app personal appearanc	8.3	9.3	18.0	13.1	-1.0	-30	30	60
19 Specialization	3.0	3.4	0.0	33.4	-0.4	-50	50	100
*20 Physical overprotection	10.7	11.1	12.0	6.3	-2.0	-12	15	27
21 Social overprotection	5.8	6.3	12.0	7.6	-0.6	-12	15	27
22 Intensity relevant programming	-2.2	-3.8	0.0	20.3	-0.4	-35	35	70
23 Physical comfort	12.5	16.8	20.0	11.5	-1.2	-25	25	50
*24 Environmental beauty	2.7	4.2	0.0	9.2	0.1	-16	20	36
25 Individualization	13.4	14.8	21.0	15.7	-1.4	-35	35	70
26 Interactions	13.5	19.6	20.0	10.3	-1.0	-25	25	50
27 Comprehensiveness	11.3	11.6	12.0	5.5	-0.4	0	18	18
28 Utilization generic services	2.2	2.1	0.0	10.1	-0.5	-16	16	32
29 Consumer & public participatn	2.8	3.8	0.0	20.0	-0.5	-30	24	54
30 Innovativeness	11.8	12.4	18.0	8.7	0.0	0	30	30
31 Ties to academia	6.8	8.0	12.0	8.6	-1.4	-15	15	30
32 Research climate	5.3	5.3	8.0	4.5	-1.0	-10	18	28
33 Deinstitutionalization	8.0	5.9	0.0	7.9	0.4	0	20	20
34 Age group priorities	10.5	11.4	0.0	9.2	0.2	0	25	25
35 Staff development	3.5	3.1	0.0	12.7	-0.2	-20	20	40
36 Manpower development	0.8	1.1	0.0	6.1	-0.7	-10	8	18
37 Admin control & structures	8.7	11.8	20.0	15.4	-0.8	-20	25	45
38 Planning process	0.5	0.0	0.0	10.7	-0.4	-20	16	36
39 Program evaluation & change	-17.8	-27.2	-28.0	17.1	1.5	-28	28	56
40 Budget realism	3.4	5.6	12.0	10.2	-0.7	-15	15	30
41 Budget economy	8.9	11.3	24.0	18.0	-0.8	-30	30	60
42 Soc integ interpretations	14.6	12.7	16.0	17.0	-0.7	-36	40	76
43 Soc integ program structures	-4.6	-6.9	-6.0	35.2	0.2	-90	78	168
44 Physical integration	36.5	43.5	76.0	46.6	-0.5	-89	95	184
45 Social integration	10.2	12.0	16.0	43.8	-0.1	-98	118	216
46 Age-app interps & structures	44.8	54.0	65.0	58.4	-0.2	-76	155	231
47 Cult-app interps & structures	11.6	10.0	42.0	24.4	-0.1	-42	54	96
48 Integration	46.8	59.0	78.0	78.2	-0.3	-141	213	354
49 Approp interprets & structures	56.5	61.7	103.0	77.6	-0.2	-118	203	321
50 Developmental growth orientatn	14.3	18.5	12.0	28.4	-0.7	-59	65	124
51 Quality of setting	42.2	47.0	61.0	36.0	-1.0	-76	96	172
52 Normalization-related	162.8	178.5	435.0	202.2	-0.2	-333	627	960
53 Administration-related	28.0	27.8	20.0	25.4	-0.3	-46	76	122
54 Various	12.0	17.6	20.0	10.4	-1.1	-15	23	38
55 Regional priorities	18.6	20.8	0.0	12.7	0.0	0	45	45
56 Ideology	221.5	234.0	327.0	214.5	-0.2	-341	720	1061
57 Internal administration	-8.3	-7.8	-8.0	35.0	0.2	-68	69	137
58 Finance	12.3	12.9	36.0	24.5	-0.8	-45	45	90
59 Manpower considerations	4.9	1.3	0.0	15.8	-0.2	-30	30	60
60 Operational effectiveness	4.1	8.5	16.0	52.2	-0.3	-113	114	227
61 Administration	9.0	18.5	16.0	61.4	-0.3	-133	142	275
62 TOTAL PASS SCORE	228.9	224.5	406.0	248.9	-0.1	-399	853	1252
63 Facility score	57.2	60.1	44.0	43.0	-0.5	-70	160	230
64 Program score	173.1	160.5	59.0	225.1	-0.1	-379	727	1106

Note: a) Variables no. 1-41 are all ratings. Variables 42-61 are aggregated variables, formed by summation from the 41 basic PASS ratings. Variables 62-64 are overall aggregated variables. For full explanation, see Wolfensberger and Glenn, 1973 (Handbook), pp. 4-11.

b) In this table and subsequent tables, the number of observations (or, separate PASS evaluations) is 102 for all variables (i.e., there are no missing or excluded data), unless otherwise indicated.

TABLE 3

MEAN SCORES AS PERCENTAGE OF MAXIMUM ATTAINABLE

(N = 102)

		Mean	Maximum	% of maximum
*1	Proximity	17.0	30	57
*2	Access	5.6	10	59
*3	Physical context	4.8	20	24
4	Size or dispersal	9.1	35	26
5	Program & facility labels	7.2	20	36
*6	Building perception	7.8	20	39
7	Deviant staff contact	18.8	30	63
8	Other deviant contact	-18.1	30	-60
9	Soc integ social opportunities	-5.5	30	-18
*10	Facilities, e d & appointments	7.5	15	50
11	Possessions	11.2	20	56
12	Age-app labels & forms address	2.6	20	13
13	Activities, routines & rhythms	8.1	30	27
14	Autonomy & rights	7.1	35	20
15	Sex behavior	5.8	20	29
16	Age-app personal appearance	2.1	25	8
17	Culture-app labels & forms add	3.3	30	11
18	Culture-app personal appearanc	8.3	30	28
19	Specialization	3.0	50	6
*20	Physical overprotection	10.7	15	71
21	Social overprotection	5.8	15	39
22	Intensity relevant programming	-2.2	35	- 6
23	Physical comfort	12.5	25	50
*24	Environmental beauty	2.7	20	14
25	Individualization	13.4	35	38
26	Interactions	13.5	25	54
27	Comprehensiveness	11.3	20	57
28	Utilization generic services	2.2	20	11
29	Consumer & public participatn	2.8	30	9
30	Innovativeness	11.8	30	39
31	Ties to academia	6.8	15	45
32	Research climate	5.3	10	53
33	Deinstitutionalization	8.0	20	40
34	Age group priorities	10.5	25	42
35	Staff development	3.5	25	14
36	Manpower development	0.8	10	8
37	Admin control & structures	8.7	25	35
38	Planning process	0.5	20	3
39	Program evaluation & change	-17.8	35	-51
40	Budget realism	3.4	15	23
41	Budget economy	8.9	30	30
42	Soc integ interpretations	14.6	40	37
43	Soc integ program structures	-4.6	90	- 5
44	Physical integration	36.5	95	38
45	Social integration	10.2	130	8
46	Age-app interps & structures	44.8	165	27
47	Cult-app interps & structures	11.6	60	19
48	Integration	46.8	225	21
49	Approp interprets & structures	56.5	225	25
50	Developmental growth orientatn	14.3	65	22
51	Quality of setting	42.2	105	40
52	Normalization-related	162.8	670	24
53	Administration-related	28.0	100	28
54	Various	12.0	25	48
55	Regional priorities	18.6	45	41
56	Ideology	221.5	840	26
57	Internal administration	-8.3	80	-10
58	Finance	12.3	45	27
59	Manpower considerations	4.9	35	14
60	Operational effectiveness	4.1	125	3
61	Administration	9.0	160	6
62	TOTAL PASS SCORE	228.9	1000	23
63	Facility score	57.2	130	44
64	Program score	173.1	870	20

Table 4 illustrates this last finding very clearly. Of the basic 41 PASS 2 ratings, only 'Physical overprotection' (71% of maximum) achieves a mean score at the expected level of service quality. Other ratings on which service quality approaches the expected level include 'Deviant staff contact' (63% of maximum), 'Access' (59%), 'Proximity' (57%), and 'Comprehensiveness' (57%). The worst dimensions of service quality, all attaining less than minimally acceptable performance levels, are 'Other deviant contact'[1] (-60% of maximum), 'Program evaluation and change' (-51%), 'Socially integrative social opportunities' (-18%), and 'Intensity of relevant programming' (-6%).

The authors of PASS used three criteria in assigning weights to ratings: the importance of the subject matter being rated, the seriousness (relatively poor attainment) of the service issue, and the universality of application of the rating (Wolfensberger and Glenn, PASS Handbook, 1973, p. 8). The present study suggests that the authors were successful in assigning score weights so as to emphasize current service shortcomings, in that the most heavily weighted ratings were found to be least well attained in practice. The Spearman correlation (corrected for ties; Edwards, 1967) between the ranking of 41 basic PASS ratings according to their assigned a priori weights, and their ranking according to percentage of maximum score actually attained, was -.41 ($p < .01$, two-tailed; Table 4).

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[1] Experience with PASS 2 indicates that this rating, 'Other deviant contact', was consistently misinterpreted and misapplied by users of PASS 2. The original intent of the rating was to measure the extent of social contact that clients experienced with persons from groups marked by deviancies different ("other") from their own deviancy. In practice, raters applied the rating both to programs promoting client segregation (contact with peers sharing the same deviancy) and to programs fostering deviancy juxtaposition (contact with persons with deviancies different from the clients' own). This ambiguity and confusion has been eliminated in the forthcoming PASS 3. The pervasiveness of segregative service practices is, however, reflected well in the present finding, even if the rating was originally intended to assess deviancy juxtaposition only.

TABLE 4

RANK-ORDER OF 41 BASIC PASS RATINGS, ACCORDING TO MEAN SCORE AS PERCENTAGE OF MAXIMUM ATTAINABLE

(N = 102)

PASS RATING	% of MAX	RANK [a]
*Physical overprotection	71	1
Deviant staff contact	63	2
*Access	59	3
*Proximity	57	4
Comprehensiveness	57	4
Possessions	56	6
Interactions	54	7
Research climate	53	8
*Facilities, e d & appointments	50	9
Physical comfort	50	9
Ties to academia	45	11
Age group priorities	42	12
Deinstitutionalization	40	13
*Building perception	39	14
Social overprotection	39	14
Innovativeness	39	14
Individualization	38	17
Program & facility labels	36	18
Admin control & structures	35	19
Budget economy	30	20
Sex behavior	29	21
Culture-app personal appearance	28	22
Activities, routines & rhythms	27	23
Size or dispersal	26	24
*Physical context	24	25
Budget realism	23	26
Autonomy & rights	20	27
*Environmental beauty	14	28
Staff development	14	28
Age-app labels & forms address	13	30
Culture-app labels & forms address	11	31
Utilization of generic services	11	31
Consumer & public participation	9	33
Age-app personal appearance	8	34
Manpower development	8	34
Specialization	6	36
Planning process	3	37
Intensity of relevant programming	- 6	38
Socially integrat social opportuns	-18	39
Program evaluation & change	-51	40
Other deviant contact	-60	41

Note: a) Spearman correlation (corrected for ties) between rank-orders of PASS ratings according to mean score as % of maximum attainable, and according to assigned a priori weights, equals -.41 ($p < .01$, two-tailed)

Effect of Non-Linear Scoring System

Program quality in PASS 2 (and in its soon to be published successor, PASS 3) is quantified through a two-step procedure. First, a team of evaluators rates the program by assigning to it the level of quality, on each of the 41 ratings, that is judged to correspond most closely to it. Second, these levels are translated into their respective quantitative scores (weights), and the scores are summed to form the Total PASS Score.

This scoring procedure involves a conversion from ordinal measurement (levels of judged quality) to (assumed) interval measurement (numerical weights or scores). It is common in the behavioral sciences to treat data which, strictly speaking, are only ordinal as if they were interval, and to apply the whole range of parametric statistics and procedures. In PASS, however, an additional factor is involved: the assessments of quality made in terms of levels are not converted merely to the assumed interval scale of 1, 2, 3, 4, etc., but are converted to the interval measurement using a "non-linear" system of weights (e.g. -30, 0, 24, 30 for levels 1, 2, 3, and 4, respectively, of 'Proximity'). Accordingly, it was necessary to verify whether, in fact, any significant statistical distortion was introduced by the use of this non-linear scoring system. This system was devised on a priori grounds by the authors of PASS, such that it "imposes severe penalities for unacceptable performance, but offers large incentives for above-minimal but below-ideal performance" (Wolfensberger and Glenn, PASS Handbook, 1973, pp. 9-10).

To assess whether this scoring system entailed any important statistical bias (e.g. by inflating or deflating the intercorrelations among the PASS variables), matrices of Kendall tau correlation coefficients (appropriate for ordinal data) and Pearson r correlation coefficients (appropriate for interval measurement) were generated and compared. The results of this analysis showed that there was almost no distortion introduced by treating the weighted PASS scores as if they were interval level data. The magnitudes and signs of the Kendall tau and Pearson r coefficients were virtually identical[1]. Table 5 illustrates this by comparing the

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[1] The exact procedure used was as follows. First, only the weighted PASS scores, and not the raw, unweighted levels scores, had been entered on the IBM punched cards. The Pearson r 64 x 64 correlation matrix was generated by the SPSS Pearson correlation program, using the weighted scores as input data. The Kendall tau 64 x 64 correlation matrix was generated by the SPSS rank-order correlation program, again using the weighted scores as input data. Since the latter SPSS program reads variables in (here, the assumed interval level, weighted PASS scores) and then replaces their initial values with

(Footnote 1 continued, pg. 14.)

TABLE 5

PEARSON r AND KENDALL Tau CORRELATION COEFFICIENTS

BETWEEN VARIABLE 25, "INDIVIDUALIZATION", AND ALL

OTHER PASS VARIABLES

		r	p	Tau	p
*1	Proximity	.18	.05	.15	.014
*2	Access	.31	.005	.26	.005
*3	Physical context	.25	.01	.24	.005
4	Size or dispersal	.27	.005	.27	.005
5	Program & facility labels	.17	.05	.25	.005
*6	Building perception	.33	.005	.27	.005
7	Deviant staff contact	.12	NS	.21	.005
8	Other devisnt contact	.26	.005	.25	.005
9	Socially integrative social opportunities	.35	.005	.36	.005
*10	Facilities, environmental design & appointments	.32	.005	.33	.005
11	Possessions	.41	.005	.42	.005
12	Age-appropriate labels & forms address	.26	.005	.28	.005
13	Activities, routines & rhythms	.36	.005	.39	.005
14	Autonomy & rights	.52	.005	.50	.005
15	Sex behavior	.25	.01	.25	.005
16	Age-appropriate personal appearance	.28	.005	.31	.005
17	Culture-appropriate labels & forms addresses	.41	.005	.37	.005
18	Culture-appropriate personal appearance	.60	.005	.51	.005
19	Specialization	.47	.005	.46	.005
*20	Physical overprotection	.54	.005	.41	.005
21	Social overprotection	.57	.005	.52	.005
22	Intensity of relevant programming	.41	.005	.43	.005
23	Physical comfort	.56	.005	.41	.005
*24	Environmental beauty	.33	.005	.34	.005
25	Individualization	1.00	--	1.00	--
26	Interactions	.53	.005	.54	.005
27	Comprehensiveness	.09	NS	.03	NS
28	Utilization of generic services	.36	.005	.40	.005
29	Consumer & public participation	.07	NS	-.01	NS
30	Innovativeness	.21	.025	.20	.005
31	Ties to academia	-.02	NS	-.01	NS
32	Research climate	.02	NS	.01	NS
33	Deinstitutionalization	.29	.005	.23	.005
34	Age group priorities	-.07	NS	.04	NS
35	Staff development	.12	NS	.16	.01
36	Manpower development	.17	.05	.16	.01
37	Admin control & structures	.26	.005	.29	.005
38	Planning process	.15	NS	.23	.005
39	Program evaluation & change	.22	.025	.23	.005
40	Budget realism	.16	NS	.21	.005
41	Budget economy	.38	.005	.36	.005
42	Socially integrative interpretations	.29	.005	.28	.005
43	Socially integrative program structures	.28	.005	.26	.005
44	Physical integration	.33	.005	.23	.005
45	Social integration	.34	.005	.33	.005
46	Age appropriate interps & structures	.51	.005	.45	.005
47	Culture-appropriate interps & structures	.59	.005	.48	.005
48	Integration	.39	.005	.31	.005
49	Appropriate interpretations & structures	.57	.005	.48	.005
50	Developmental growth orientation	.57	.005	.49	.005
51	Quality of setting	.84	.005	.71	.005
52	Normalization-related	.66	.005	.55	.005
53	Administration-related	.29	.005	.16	.01
54	Various	.00	NS	-.03	NS
55	Regional priorities	.13	NS	.17	.005
56	Ideology	.66	.005	.54	.005
57	Internal administration	.29	.005	.29	.005
58	Finance	.35	.005	.33	.005
59	Manpower considerations	.19	.05	.23	.005
60	Operational effectiveness	.36	.005	.33	.005
61	Administration	.36	.005	.33	.005
62	TOTAL PASS SCORE	.65	.005	.55	.005
63	Facility score	.45	.005	.34	.005
64	Program score	.63	.005	.53	.005

Note: All tests of significance one-tailed.

correlations between variable 25, 'Individualization', and all other variables. For the 41 basic ratings, r and tau are of nearly identical size. For the aggregated variables (numbers 42-64), tau is generally somewhat smaller than r. This is consistent with the observation made by Nie et al (1970) that when the data in question are more or less continuous (as is the case with the aggregated variables 42-64), the absolute value of tau tends to be slightly smaller than that of r.

It seems very appropriate, then, to treat weighted PASS scores as (assumed) interval data for purposes of statistical analysis. This conclusion is consistent with recent work by Labovitz (1967), Boyle (1970), and others showing that assuming equal intervals with what are, strictly speaking, ordinal data usually involves only minor distortions.[2]

(Footnote 1 continued)

ordinal rankings (Nie et al, 1970, p. 153), the resultant Kendall tau coefficients were necessarily identical to those that would have been generated had the raw, unweighted, ordinal PASS levels scores been used as input data to the SPSS rank-order correlation program.

To forestall possible misunderstanding concerning the meaning and implications of the finding that "the magnitudes and signs of the Kendall tau and Pearson r coefficients were virtually identical" (in text above), it should be stated that no claim is advanced here that in fact the weighted PASS scores constitute "true" interval measurement. Rather, the finding indicates that weighted PASS scores, even if truly only ordinal level in nature, can safely be treated as if they are interval, and statistical analyses of weighted PASS scores can therefore benefit from the considerably more powerful statistical procedures applicable to interval, as compared to ordinal, measurement.

[2] For a recent, brief discussion of the undermeasurement controversy, and of the strengths and weaknesses of the two competing approaches (methodological pragmatism--adopted here--versus methodological purism), see Acock and Martin, 1974.

Intercorrelations among the PASS 2 Variables

The various elements in PASS 2 are all intended to tap some dimension of service quality, and all 65 variables run in the same direction, from low (unacceptable service quality) to high (near-ideal quality). Accordingly, most correlations among the variables were expected to be positive. Furthermore, it was anticipated that ratings would show a positive and significant correlation with the Total PASS Score (or at least with one of the latter's components--the Facility Score or the Program Score--which, when summed, constitute the Total PASS Score).

Table 6 presents the intercorrelation matrix of Pearson r's for all variables, based on the full sample. Almost all the intercorrelations were as expected. Of the 820 correlations among the 41 basic PASS ratings, only nine were both negative and statistically significant ($p < .05$, two-tailed). Of these nine, six involved the single rating, 'Consumer and public participation'. Previous experience with field use of PASS 2 had revealed that this particular rating was faultily constructed, in that programs could receive a Level 3 rating if consumers occupied positions of formal power-wielding, despite lacking the requirements for a Level 2 rating (consumer participation in informational and advisory functions). This error in scale construction, reflected in our findings, has been corrected in the forthcoming third edition of PASS. The absence of similar empirical inconsistencies in the other 40 ratings suggests that they were not marked by the same weakness.

Correlations of 41 PASS 2 Ratings with Total PASS Score

Table 6 reveals that most of the 41 basic PASS 2 ratings correlated as anticipated (i.e. both positively and significantly, $p < .01$) with the overall measure of service quality, Total PASS Score. Six of the 41 basic ratings, however, had correlations with Total PASS Score that were not statistically significant at the .01 level (one-tailed):

'Proximity':	$r = .14$, $p < .10$;
'Comprehensiveness':	$r = .20$, $p < .025$;
'Consumer and public participation':	$r = .02$, $p < .45$;
'Ties to academia':	$r = .04$, $p < .35$;
'Research climate':	$r = .15$, $p < .10$;
'Age group priorities':	$r = .12$, $p < .15$.

A brief comment on each is in order. 'Proximity' may correlate weakly with overall service quality partly on account of its highly skewed distribution (column 5, Table 2), which attenuates the correlation. Since it correlates well, however, with Facility Score ($r = .63$, $p < .001$), an important sub-portion of program quality, proximity seems relatively non-problematic. 'Comprehensiveness' does correlate ($p < .025$), even if weakly, with overall PASS score. 'Consumer and public participation', as noted previously, had an internal weakness in construction which has been corrected

TABLE 6

MATRIX OF PEARSON CORRELATION COEFFICIENTS[a] FOR TOTAL SAMPLE OF 102 PASS EVALUATIONS, 64 VARIABLES

	PASS VARIABLE	1	2	3	4	5	6	7	8	9	10	11
*1	Proximity	—										
*2	Access	74[b,c]	—									
*3	Physical context	51	41	—								
4	Size or dispersal	08	10	61	—							
5	Program & facility labels	06	13	42	41	—						
*6	Building perception	14	25	33	45	36	—					
7	Deviant staff contact	08	-01	19	41	34	22	—				
8	Other deviant contact	-17	-04	10	34	17	11	24	—			
9	Social integ social opportunities	13	27	33	44	38	23	24	44	—		
*10	Facilities e d & appointments	11	16	26	30	29	31	11	24	33	—	
11	Possessions	06	20	13	14	23	30	10	08	21	50	—
12	Age-app labels & forms address	-05	-02	20	27	19	08	18	36	40	39	26
13	Activities, routines & rhythms	-08	07	19	28	28	26	14	15	21	45	36
14	Autonomy & rights	04	20	22	22	20	29	07	29	45	46	38
15	Sex behavior	16	17	35	44	22	34	27	22	49	41	28
16	Age-app personal appearance	11	15	26	21	22	23	20	22	36	42	46
17	Culture-app labels & forms add	05	16	19	16	32	31	07	30	26	33	34
18	Culture-app personal appearance	12	14	37	35	30	29	04	20	30	53	47
19	Specialization	-07	07	21	34	32	37	23	42	47	55	49
*20	Physical overprotection	-02	10	30	44	33	44	30	23	35	50	41
21	Social overprotection	07	17	24	28	20	21	04	23	43	48	57
22	Intensity relevant programming	05	10	22	18	25	21	15	23	26	40	45
23	Physical comfort	13	26	26	14	09	40	11	04	22	21	16
*24	Environmental beauty	-06	00	18	16	14	31	16	02	17	28	19
25	Individualization	18	31	25	27	17	33	12	26	35	32	41
26	Interactions	05	07	25	21	29	10	12	22	35	19	13
27	Comprehensiveness	12	21	07	04	22	28	16	-09	-09	05	00
28	Utilization generic services	13	22	19	25	23	16	21	13	29	26	11
29	Consumer & public participation	21	23	06	-11	-06	10	-04	-24	03	-26	00
30	Innovativeness	-19	-05	05	17	14	23	18	35	29	18	12
31	Ties to academia	02	02	-07	10	-17	-01	-04	08	-06	-07	-01
32	Research climate	08	02	-01	-03	13	22	08	-14	-01	05	15
33	Deinstitutionalization	06	05	-02	07	17	18	17	11	18	14	34
34	Age group priorities	-17	-04	02	11	19	00	13	10	17	-18	06
35	Staff development	23	-09	-04	17	04	-07	02	33	25	14	07
36	Manpower development	06	00	03	06	10	10	04	04	16	-06	10
37	Admin control & structures	01	06	25	28	14	11	21	15	25	17	10
38	Planning process	-02	08	09	06	00	01	01	13	22	13	03
39	Program evaluation & change	-17	-08	-07	-03	05	21	-04	17	07	06	21
40	Budget realism	-10	-04	05	08	11	-02	16	18	20	05	-01
41	Budget economy	-03	-01	14	21	19	10	27	22	31	30	34
42	Soc integ interpretations	17	28	48	50	82	81	33	18	38	38	30
43	Soc integ program structures	-05	03	24	53	39	24	65	80	71	31	17
44	Physical integration	63	55	86	80	40	44	33	16	43	31	16
45	Social integration	01	11	37	62	63	50	64	69	69	38	26
46	Age-app interps & structures	04	18	32	36	34	36	20	32	49	70	62
47	Cult-app interprets & structures	10	19	32	29	37	36	07	30	33	51	48
48	Integration	38	39	72	83	59	55	56	49	66	40	24
49	Approp interprets & structures	07	20	34	36	37	39	17	34	47	68	61
50	Developmental growth orientatn	05	14	29	30	31	31	18	27	38	53	57
51	Quality of setting	11	22	31	25	21	37	15	19	36	33	30
52	Normalization-related	19	30	54	60	51	52	37	46	63	63	54
53	Administration-related	18	30	16	08	14	28	15	-04	22	-03	09
54	Various	06	05	-06	-10	-07	07	00	00	-05	-04	05
55	Regional priorities	-16	00	00	12	25	11	20	14	24	-04	25
56	Ideology	19	32	52	57	51	53	37	43	63	59	54
57	Internal administration	-08	01	12	14	11	16	09	19	22	16	17
58	Finance	-06	-02	12	19	19	06	27	24	31	24	24
59	Manpower considerations	-19	-05	02	20	12	01	05	26	28	13	12
60	Operational effectiveness	-08	00	13	18	16	14	19	24	29	22	23
61	Administration	-12	-02	12	20	17	12	17	27	32	22	23
62	TOTAL PASS SCORE	14	27	48	54	47	49	36	44	62	55	51
63	Facility score	63	55	73	50	35	64	25	09	34	53	37
64	Program score	03	18	38	50	45	42	35	48	62	51	50
		1	2	3	4	5	6	7	8	9	10	11

Notes: a) N = 102 for all correlations
b) Decimal points omitted
c) With N-2 = 100 degrees of freedom, for Pearson $r \geq .164$, $p < .05$; for $r \geq .195$, $p < .025$; for $r \geq .230$, $p < .01$; for $r \geq .254$, $p < .005$, all one-tailed tests. (For two-tailed tests, simply double probabilities just given)

TABLE 6 (continued)

	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27
12	—															
13	40	—														
14	38	41	—													
15	46	33	37	—												
16	36	46	39	34	—											
17	34	41	50	32	31	—										
18	36	47	38	35	58	39	—									
19	44	53	63	48	43	42	48	—								
*20	12	27	36	27	27	21	45	46	—							
21	20	36	60	36	38	39	49	66	56	—						
22	28	49	41	28	30	36	44	62	42	44	—					
23	10	19	38	11	23	19	41	22	53	29	21	—				
*24	35	34	33	16	35	27	35	21	23	10	18	45	—			
25	26	36	52	25	28	41	60	47	54	57	41	56	33	—		
26	37	34	49	21	35	39	50	35	27	35	38	38	42	53	—	
27	-03	19	05	02	-22	06	-03	06	16	-09	20	15	-09	09	-03	—
28	20	34	32	32	10	27	32	40	20	26	31	18	19	36	26	43
29	-25	-23	00	-23	-08	-04	-16	-01	12	04	07	18	-09	07	-04	06
30	29	29	32	16	07	23	16	36	17	18	35	22	16	21	25	19
31	26	00	02	08	-27	04	-21	08	-13	-08	10	-06	-07	-02	-06	30
32	04	06	03	13	03	04	02	13	10	08	16	00	-02	02	02	23
33	05	29	23	16	34	20	35	29	36	34	22	26	26	29	12	-09
34	30	12	00	12	26	-01	15	13	-16	-07	00	01	24	-07	27	-23
35	29	29	12	19	09	12	11	17	12	10	28	-07	06	12	24	24
36	22	04	14	17	-11	07	08	14	18	04	24	16	09	17	27	29
37	25	30	27	34	12	14	31	29	20	18	42	14	19	26	27	28
38	19	22	14	16	01	22	11	17	06	16	33	-03	09	15	11	14
39	21	27	29	13	14	33	25	30	04	15	41	01	11	22	24	05
40	15	23	05	04	11	05	09	10	07	05	18	-08	05	16	10	25
41	16	34	35	18	22	09	30	46	41	35	39	15	17	38	33	16
42	19	33	38	35	29	38	36	41	45	26	27	32	28	29	25	29
43	42	21	35	41	38	28	24	50	40	32	28	13	15	28	31	-03
44	19	20	23	43	25	18	37	24	34	27	20	23	12	33	22	11
45	38	28	40	44	39	35	32	55	50	34	32	22	22	34	34	11
46	65	76	76	61	71	56	63	73	42	61	54	31	42	51	46	03
47	41	52	54	40	52	87	79	53	38	52	47	34	36	59	53	02
48	34	28	37	52	38	31	41	46	48	36	30	26	20	39	32	12
49	61	73	74	58	70	69	73	72	44	62	56	34	43	57	52	03
50	28	51	54	36	37	41	55	72	67	71	93	35	21	57	43	15
51	34	38	57	23	37	42	62	42	53	46	39	80	66	84	73	06
52	54	61	71	59	59	59	69	79	61	66	63	44	42	66	57	10
53	-02	10	24	01	-05	17	05	28	27	18	35	32	04	29	15	50
54	23	03	03	11	-20	05	-16	12	-06	-04	15	-04	-04	00	-03	35
55	25	27	14	19	40	12	32	27	11	16	13	16	34	13	27	-22
56	53	60	70	58	57	59	67	80	60	65	65	46	42	66	56	16
57	27	35	32	26	13	29	30	34	14	22	50	06	19	29	28	21
58	18	35	28	15	21	08	26	38	33	28	36	08	14	35	29	22
59	31	29	18	20	03	12	15	19	19	13	32	02	14	19	32	33
60	27	40	34	24	19	23	33	41	25	28	50	08	20	36	32	25
61	31	41	34	26	17	23	32	39	26	27	51	07	20	36	36	29
62	53	61	68	56	53	56	65	78	58	62	68	41	40	65	57	20
63	21	27	37	45	37	32	46	33	49	39	32	44	33	45	25	14
64	55	62	68	55	51	56	63	80	55	62	69	36	36	63	57	19
	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27

TABLE 6 (continued)

PASS VARIABLE	28	29	30	31	32	33	34	35	36
*1 Proximity									
*2 Access									
*3 Physical context									
4 Size or dispersal									
5 Program & facility labels									
*6 Building perception									
7 Deviant staff contact									
8 Other deviant contact									
9 Social integ social opportunities									
*10 Facilities e d & appointments									
11 Possessions									
12 Age-app labels & forms address									
13 Activities, routines & rhythms									
14 Autonomy & rights									
15 Sex behavior									
16 Age-app personal appearance									
17 Culture-app labels & forms add									
18 Culture-app personal appearance									
19 Specialization									
*20 Physical overprotection									
21 Social overprotection									
22 Intensity relevant programming									
23 Physical comfort									
*24 Environmental beauty									
25 Individualization									
26 Interactions									
27 Comprehensiveness									
28 Utilization generic services	—								
29 Consumer & public participation	-14	—							
30 Innovativeness	31	-10	—						
31 Ties to academia	-01	12	12	—					
32 Research climate	-01	08	15	24	—				
33 Deinstitutionalization	20	11	21	-26	11	—			
34 Age group priorities	-10	-03	02	-03	00	09	—		
35 Staff development	33	-20	36	19	08	07	01	—	
36 Manpower development	26	24	32	47	28	-02	11	38	—
37 Admin control & structures	57	-09	20	04	09	16	-05	40	32
38 Planning process	42	01	39	-01	04	15	-08	36	11
39 Program evaluation & change	19	01	36	05	20	13	-04	22	27
40 Budget realism	43	-13	25	-03	-02	06	-04	39	11
41 Budget economy	40	04	24	-07	14	27	-02	33	23
42 Soc integ interpretations	23	01	25	-12	20	19	11	-01	12
43 Soc integ program structures	27	-15	38	-02	-05	21	19	29	09
44 Physical integration	27	05	04	-07	01	02	00	00	03
45 Social integration	29	-10	38	-05	04	26	19	22	14
46 Age-app interps & structures	35	-20	31	00	07	33	15	25	10
47 Cult-app interprets & structures	35	-11	24	-09	03	32	07	14	09
48 Integration	33	-03	24	-08	03	15	11	13	08
49 Approp interprets & structures	38	-19	31	-03	07	35	13	23	10
50 Developmental growth orientatn	34	09	34	02	16	33	-06	25	22
51 Quality of setting	34	05	27	-04	00	30	11	11	22
52 Normalization-related	44	-06	37	-03	08	33	13	22	17
53 Administration-related	48	70	43	20	16	22	-11	15	46
54 Various	00	15	16	92	59	-16	-01	20	51
55 Regional priorities	05	04	15	-18	07	69	78	05	06
56 Ideology	48	03	41	03	13	37	15	23	24
57 Internal administration	48	-06	40	03	14	17	-06	37	29
58 Finance	47	-03	28	-07	09	22	-03	41	21
59 Manpower considerations	36	-13	43	30	13	01	03	88	61
60 Operational effectiveness	54	-05	40	-01	14	22	-06	44	29
61 Administration	55	-08	45	07	15	19	-04	60	41
62 TOTAL PASS SCORE	55	02	47	04	15	37	12	36	32
63 Facility score	22	05	10	-04	19	13	-11	-08	04
64 Program score	55	00	50	06	15	38	15	41	34
	28	29	30	31	32	33	34	35	36

TABLE 6 (continued)

	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52
37	—															
38	56	—														
39	40	45	—													
40	51	50	25	—												
41	53	31	22	47	—											
42	14	01	17	04	18	—										
43	27	16	10	26	37	39	—									
44	24	06	-11	02	15	52	36	—								
45	26	10	11	21	37	68	93	48	—							
46	33	19	29	14	39	45	45	34	50	—						
47	26	21	35	08	22	45	31	32	40	71	—					
48	30	11	02	14	30	69	75	87	85	49	43	—				
49	33	21	33	13	36	48	43	35	50	97	85	50	—			
50	39	29	34	16	47	36	37	29	43	64	56	42	66	—		
51	28	11	19	08	34	36	29	29	36	55	61	38	61	52	—	
52	39	22	27	15	44	64	64	61	74	87	76	78	89	76	69	—
53	29	34	22	21	31	25	11	19	19	09	14	22	11	35	28	27
54	07	00	12	-03	01	-01	-04	-05	-03	-03	-05	-05	01	08	-02	01
55	06	04	05	01	15	20	27	02	30	31	25	17	31	16	26	30
56	41	25	29	17	46	64	63	59	73	85	74	77	87	77	69	99
57	80	77	80	49	43	16	23	08	21	36	36	19	39	44	27	39
58	60	44	27	76	93	15	38	12	36	35	19	28	32	41	28	39
59	42	33	25	34	33	08	27	05	25	26	16	17	25	30	21	27
60	82	72	66	69	73	18	33	11	31	41	33	25	41	49	31	44
61	81	70	63	67	70	17	35	11	33	41	32	26	41	49	32	45
62	55	39	41	31	57	59	63	53	71	83	72	72	85	78	67	96
63	23	08	03	-01	18	63	26	79	43	49	46	72	52	44	48	67
64	57	41	45	35	59	53	64	43	70	82	71	66	84	78	63	93
	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52

TABLE 6 (completed)

	PASS VARIABLE	53	54	55	56	57	58	59	60	61	62	63	64
*1	Proximity												
*2	Access												
*3	Physical context												
4	Size or dispersal												
5	Program & facility labels												
*6	Building perception												
7	Deviant staff contact												
8	Other deviant contact												
9	Soc integ soc opportunities												
*10	Facilities e d & appointments												
11	Possessions												
12	Age-app labels & forms addr												
13	Activities, routines & rhythms												
14	Autonomy & rights												
15	Sex behavior												
16	Age-app personal behavior												
17	Culture-app labels & forms add												
18	Culture-app personal appearanc												
19	Specialization												
*20	Physical overprotection												
21	Social overprotection												
22	Intensity relevant programming												
23	Physical comfort												
*24	Environmental beauty												
25	Individualization												
26	Interactions												
27	Comprehensiveness												
28	Utilization generic services												
29	Consumer & public participatn												
30	Innovativeness												
31	Ties to academia												
32	Research climate												
33	Deinstitutionalization												
34	Age group priorities												
35	Staff development												
36	Manpower development												
37	Admin control & structures												
38	Planning process												
39	Program evaluation & change												
40	Budget realism												
41	Budget economy												
42	Soc integ interpretations												
43	Soc integ program structures												
44	Physical integration												
45	Social integration												
46	Age-app interps & structures												
47	Cult-app interps & structures												
48	Integration												
49	Approp interps & structures												
50	Developmental growth orientn												
51	Quality of setting												
52	Normalization-related												
53	Administration-related	—											
54	Various	25	—										
55	Regional priorities	06	-11	—									
56	Ideology	39	09	34	—								
57	Internal administration	33	08	06	41	—							
58	Finance	31	-01	12	41	52	—						
59	Manpower considerations	26	31	03	30	45	39	—					
60	Operational effectiveness	37	05	10	47	92	82	48	—				
61	Administration	38	12	09	48	89	80	67	97	—			
62	TOTAL PASS SCORE	44	11	32	98	57	55	42	64	65	—		
63	Facility score	20	02	00	66	16	13	01	17	14	59	—	
64	Program score	43	12	34	95	61	58	46	68	70	99	48	—
		53	54	55	56	57	58	59	60	61	62	63	64

in PASS 3. The failure of 'Ties to academia' and 'Research climate' to correlate significantly with overall program quality appears to be due to a combination of the following factors: a low amount of variation in these two ratings, their relatively skewed distributions, and (perhaps most important of all) the fact that large, institutional settings tend to have more ties with academia and make more investments in research than do smaller, community agencies. Nevertheless, the overall quality of their programs, as measured by PASS, is lower. Finally, the weak correlation of 'Age group priorities' with Total PASS Score is difficult to explain satisfactorily, although its correlation with Program Score ($r = .15$) does approach significance at the .05 level.

Correlations of Facility Ratings with Total Facility Score

The seven asterisked ratings that form the summated facility index all correlated at least moderately and significantly (p .01) with Facility Score. 'Physical comfort', a rating not part of PASS 2's facility index, correlated higher with Facility Score ($.44$, $p < .01$) than it did with Program Score (.36). This finding, together with the facility-related nature of "physical comfort" itself, indicated that 'Physical comfort' should become part of the facility index in PASS 3. This would increase both the reliability and the content validity of the index.[1]

Other Correlations of Note

Table 6 deserves careful scrutiny because it presents a large number of correlations that are empirically relevant to the theoretical conceptualization of human services and human service quality that is contained in the principle of normalization (Wolfensberger, W. The principle of normalization in human services. Toronto: National Institute on Mental Retardation, 1972), in its corollary of integration, and in PASS itself. The following correlations are among the more noteworthy, but hardly exhaust the inference-relevant data in Table 6:

--'Proximity' and 'Access' were fairly strongly correlated ($r = .71$). However, 50 percent of their variance was not shared, indicating a relative degree of mutual independence, as expected.

--The crucial nature of the single most important and heavily-weighted PASS 2 rating, 'Specialization' (called 'Model coherency' in PASS 3), for determining internal program consistency among service model used, manpower, clinical processes, etc., is indicated by the fact that 'Specialization' correlated higher than .40 ($p < .01$) with all the age-and culture-appropriate and developmental growth variables. The highest correlations were with (lack of) 'Social overprotection' of clients ($r = .66$), 'Autonomy and rights' (.63), and 'Intensity of relevant programming' (.62). The major influence of 'Specialization' on other important

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[1] In light of this finding, 'Physical comfort' has, as suggested, been added to the facility index in PASS 3.

aspects of service quality is reflected in its correlations (all above .40) with (lack of) 'Other deviant contact', 'Socially integrative social opportunities', 'Individualization', 'Utilization of generic services', and 'Budget economy' (cost-effectiveness).

--Program 'Size or dispersal' correlated highest (.61) with 'Physical context' (which taps proximity to socially integrative physical resources, as well as consistency of program type with neighborhood type). 'Size or dispersal' also correlated moderately (.40's) with four of the five social integration ratings (variables 5-9, Table 6), and moderately high with Total PASS Score (.54). Service size/dispersal thus appears to be positively related, as expected, to community resources and program elements that promote client social integration.

--The correlations between 'Age-appropriate' and 'Culture-appropriate labels and forms of address' (r = .34) and between 'Age-appropriate' and 'Culture-appropriate personal appearance' (r = .58) indicated, as anticipated, that the age-appropriate and culture-appropriate dimensions of normativeness are indeed related, but also relatively independent.

--The aggregated variables, 'Physical integration' and 'Social integration', were moderately correlated (r = .48). Physical integration thus appears to contribute to, but hardly guarantee, social integration.

--The relatively modest correlation (.39) between 'Socially integrative interpretations' and 'Socially integrative program structures' supports the prior conceptualization of social integration (Wolfensberger, 1972; Wolfensberger and Glenn, 1973) as made up of two related but relatively independent dimensions, the interactional (programmatic or "clinical") and the interpretational.

--'Ideology' and 'Administration', the two largest clusters of ratings in PASS, were moderately correlated (.48).

--'Administration' had a relatively strong relationship with Total PASS Score (r = .65).

--Program Score and Facility Score were found to be moderately associated (.48).

--Finally, Program Score and Total PASS Score (overall service quality) were empirically virtually indistinguishable (r = .99).

Reliability

Reliability means accuracy, similarity, and stability of measurement. Four main sources of unreliability can be distinguished (Hirschi and Selvin, 1973):

1. Lack of agreement among observers, each looking at the same phenomenon.

2. Two or more samples from the same population will give different results.

3. Two or more sets of items from some universe of items will produce different measures.

4. Two or more measures derived from the same sample, by the same investigator using the same items, will be different at two or more points in time.

In the present study, no estimates of the amount of unreliability from sources 2 (variation over different samples) or 4 (variation over time) were possible. The first source of unreliability (lack of agreement among observers) was controlled to the extent that most of the PASS evaluations were produced only after consensus among members of rating teams. This intra-team consensus, however, is not the same as inter-team agreement, and on the latter point, we have only one isolated piece of information. Two different teams independently evaluated the same day-care centre on two successive days. Team A's Total PASS Score was 406, while teams B's was 422, indicating relatively close agreement. (This matter of inter-team reliability is extremely important, and is in need of early, intensive study.)

Inter-item reliability (type 3, above) was estimated by two methods (Ney, 1972) appropriate for measuring internal consistency from item intercorrelations. Use of the Spearman-Brown formula, (and substituting the mean intercorrelation of .21 for the 41 PASS 2 ratings) produced a reliability coefficient of .92. Cronbach's coefficient alpha yielded an estimated reliability coefficient of .89.

Factor Analyses - Dimensions of Service Quality

Two factor analyses (principal factoring with iteration, and varimax rotation; Nie et al, 1970) were carried out, to further explore the pattern of intercorrelations. The first was performed on the 41 basic ratings (Table 7), while the second was carried out on the 14 non-redundant aggregated variables formed by summation from the 41 ratings (Table 8).

TABLE 7

FACTOR ANALYSIS OF 41 PASS RATINGS,

VARIMAX ROTATION

(N = 102)

	PASS RATING	h^2	FACTOR											
			I	II	III	IV	V	VI	VII	VIII	IX	X	XI	XII
*1	Proximity	83	04[a]	-04	13	(88)[b]	00	-01	-13	-06	-07	-07	-01	03
*2	Access	73	13	00	04	(82)	00	11	07	-03	-11	01	12	-04
*3	Physical context	69	13	07	(62)	47	-02	10	-02	00	06	04	-07	21
4	Size or dispersal	76	15	12	(81)	04	-01	08	20	01	13	-04	-05	05
5	Program & facility labels	59	25	04	(51)	05	-10	-05	09	23	-03	09	(40)	16
*6	Building perception	68	25	-10	(49)	11	07	36	01	-04	-05	32	25	-23
7	Deviant staff contact	36	08	17	(42)	-03	-01	07	(13)	20	-03	-14	19	-15
8	Other deviant contact	52	18	15	19	-15	01	-02	(61)	04	15	05	-04	06
9	Soc integ social opportunities	65	30	22	33	20	01	07	(55)	20	-05	-04	-10	03
*10	Facilities, e d & appointments	67	(65)	06	20	08	-03	11	08	-15	38	-02	03	-06
11	Possessions	61	(76)	-01	04	06	06	03	-07	09	-02	05	02	-11
12	Age-app labels & forms address	64	29	15	13	01	32	11	28	34	(43)	09	-12	06
13	Activities, routines & rhythms	55	(50)	26	09	-03	00	15	01	17	32	17	20	04
14	Autonomy & rights	59	(55)	02	05	12	06	25	34	02	05	19	02	-11
15	Sex behavior	53	36	15	37	19	19	03	19	13	27	07	-11	-12
16	Age-app personal appearance	60	(55)	04	12	11	-21	14	03	(41)	15	04	-10	-01
17	Culture-app labels & forms addr	51	(41)	02	05	12	01	14	25	05	15	(42)	14	15
18	Culture-app personal appearance	69	(60)	15	21	09	-11	31	-09	13	19	10	-08	26
19	Specialization	74	(72)	15	19	-04	14	05	32	08	04	13	08	00
*20	Physical overprotection	82	(56)	10	43	-13	00	39	08	-24	-22	-17	06	00
21	Social overprotection	73	(76)	07	09	08	-04	08	24	-14	-12	01	-10	12
22	Intensity relevant programming	54	56	30	10	01	18	06	04	00	-04	23	02	-11
23	Physical comfort	80	21	-03	10	13	03	(83)	06	-05	-14	-03	06	08
*24	Environmental beauty	53	18	08	09	-03	-02	(57)	-04	32	19	11	-03	04
25	Individualization	66	(50)	18	07	17	01	47	19	-10	-08	05	01	26
26	Interactions	77	28	18	08	03	06	34	16	31	02	11	02	(63)
27	Comprehensiveness	89	-05	(31)	09	14	34	08	-14	-26	03	-01	(75)	-04
28	Utilization of generic services	56	18	(60)	11	18	03	16	12	-06	13	03	24	05
29	Consumer & public participation	54	-01	-09	-04	20	16	08	-07	-02	(67)	04	-03	-02
30	Innovativeness	45	14	31	06	-16	18	18	35	04	01	28	16	-07
31	Ties to academia	68	-07	-04	-12	05	(79)	-06	11	-07	07	02	05	-04
32	Research climate	27	17	03	07	-01	33	-05	-18	07	-15	13	15	-15
33	Deinstitutionalization	44	(40)	17	00	-07	-22	25	03	(20)	-21	05	03	-22
34	Age group priorities	56	-03	-08	09	-09	04	03	07	(72)	01	-01	-05	08
35	Staff development	46	09	(51)	00	-18	27	-04	21	03	16	-01	04	08
36	Manpower development	66	03	(26)	08	-07	(69)	13	02	10	-22	06	05	16
37	Admin control & structures	72	14	(77)	21	05	14	10	-08	-01	06	12	-07	07
38	Planning process	64	05	(68)	-04	07	-01	-01	12	-08	00	(36)	-09	-09
39	Program evaluation & change	68	22	(34)	-07	-15	13	01	00	01	-07	(68)	-05	05
40	Budget realism	53	00	(71)	01	-05	-08	-05	08	03	05	01	10	00
41	Budget economy	61	42	(58)	12	-10	02	06	03	04	-17	-16	06	07
	Percent of common variance explained		38	12	9	7	6	6	5	4	4	3	3	3

Note: a) Decimal points omitted

b) Loadings ≥ .40 circled, for ease of interpretation

TABLE 8

FACTOR ANALYSIS OF 14 FIRST-LEVEL-OF-AGGREGATION [a]

PASS VARIABLES, VARIMAX ROTATION

(N = 102)

AGGREGATED PASS VARIABLE	h^2	FACTOR			
		I	II	III	IV
42 Soc integ interpretations	53	39 [b]	05	(61) [c]	03
43 Soc integ program structures	37	37	32	34	-11
44 Physical integration	60	18	03	(75)	00
46 Age-app interps & structures	80	(85)	20	18	02
47 Cult-app interps & structures	63	(76)	08	22	02
19 Specialization	63	(71)	28	19	14
50 Developmental growth orientatn	64	(65)	36	20	21
51 Quality of setting	42	(58)	19	24	06
53 Administration-related	32	09	35	24	37
54 Various	43	-04	07	-05	(65)
55 Regional priorities	15	35	06	04	-16
57 Internal administration	46	28	(60)	02	15
58 Finance	72	18	(82)	08	-09
59 Manpower considerations	38	13	(50)	01	33
Percent of common variance explained		65	17	9	8

Notes: a) These 14 variables are formed from non-redundant sets of the 41 basic PASS ratings and thus sum to 1000 points. "Specialization", unlike the others, is not composed of other more basic ratings.

b) Decimal points omitted.

c) Loadings $\geq .40$ circled, for ease of interpretation

The size of the sample, and the large number of variables (particularly in the case of the first factor analysis), makes a good deal of caution necessary in interpreting Tables 7 and 8, which have been included mainly for descriptive purposes. Kerlinger (1973, p. 681) makes an observation of particular pertinence to the present study:

> Two of the greatest necessities of factor analysis are large samples and replication. A general rule is: use as large samples as possible. Like any statistical procedure, factor analysis is subject to measurement and sampling error, and the reliable identification of factors and factor loadings requires large N's to wash out error variance. This is especially true for item factor analysis, because item intercorrelations are usually lower and less reliable than test intercorrelations. A loose but not bad rule-of-thumb might be: ten subjects for each variable (item, measure, etc.). Replication is too seldom practised in any research. And it is particularly needed in factor analytic studies. The "reality" of factors is much more compelling if found in two or three different and large samples.

Our sample size of 102 falls far short of the 410 that would be needed, according to Kerlinger's rule-of-thumb, for the first factor analysis based on 41 ratings, although it is much closer to the 140 that would be the desired minimum for the second.

The results of the first factor analysis are shown in Table 7. All 12 factors (explaining 100 percent of the common variable) have been retained for descriptive purposes, and were generally quite interpretable:

I -is clearly a normalization-program factor accounting for 38 percent of the common variance. Almost all the clinical/programmatic and social interpretational PASS ratings had their highest loadings on this factor.

II -is an administration factor, accounting for 12 percent of the common variance, with ratings denoting administrative control, use of systematic planning, budget realism and cost-effectiveness (including use of generic services), and effective staff development, all loading highest on this factor.

III -is a normalization-service facility factor (9 percent of the variance), with service setting 'Size or dispersal', 'Physical context', 'Program and facility labels', 'Building perception', and (non-) 'Deviant staff contact' loading high or moderately on it. An additional facility-related rating, 'Physical overprotection', also had a (secondary) loading on this factor.

IV -is a service setting proximity and accessibility factor (7 percent of the variance) with high loadings for 'Proximity' and 'Access', and a secondary loading for 'Physical context'.

V -is an orientation to student manpower factor (6 percent of the variance) which, from the only two PASS ratings that loaded highly on it ('Ties to academia' and 'Manpower development'), suggests that the main links presently existing between the service projects in our sample and universities and colleges are students, probably on practicum experiences. (This is a desirable, but certainly very limited, type of relationship between human services and academic centres).

VI -is an aesthetic quality of setting factor (6 percent of the common variance). 'Physical comfort' and 'Environmental beauty' had primary loadings on this factor, whereas the two "social quality of setting" variables ('Individualization' and 'Interactions') that in PASS 2 are also considered part of quality of setting had only secondary, weaker loadings on this factor. This finding suggests a potential revision of the present "quality of setting" cluster of ratings, should future studies based on samples of greater size and representativeness replicate it. An aesthetic versus social dimension in quality of setting emerged, with the "social quality" dimension itself splitting into (a) program elements encouraging client individualization (the 'Individualization' rating's highest loading of .50 is on factor I), and, (b) an independent "relationship" element ('Interactions' formed by itself an independent factor, factor XII). Factor VI does seem to capture well the fact that some individualizing program aspects measured by PASS--e.g. encouraging clients to put up pictures or decorate their rooms to their own taste--do have an obvious aesthetic (visual) component. This is reflected by the secondary loading of 'Individualization' (.47) on the inferred "aesthetic quality of setting" factor.

VII -is a social integration program factor (5 percent of the variance) with primary loadings for (lack of) 'Other deviant contact' and 'Socially integrative social opportunities'.

VIII -is an age group priorities factor (4 percent of the variance), with 'Age group priorities' the only variable with a primary loading on it. The secondary loading for 'Age-appropriate personal appearance' on this factor also suggested that services to younger clients such as children and adolescents are more successful than are services to adults and aged persons in promoting and maintaining age-appropriate personal appearance in the clients they serve.

IX -factor IX (4 percent of the common variance) seems rather clearly an artifact of the weakness of construction in the rating, 'Consumer and public participation'. Our results, as they stand, would suggest that a lack of consumer and public participation in services is an independent dimension of service quality--something precisely the contrary of the intention of the faultily constructed PASS 2 rating. This incongruous finding is most easily explained in terms of the unintended reversal of scale levels, referred to earlier, that has been corrected in PASS 3.

X -is a program evaluation and change factor (3 percent of the variance), with the rating of the same name alone loading high on it.

XI -is a service comprehensiveness factor (3 percent of the variance), 'Comprehensiveness' loading highly on it; and,

XII -is a relationship factor (3 percent of the common variance). The fact that 'Interactions' alone loaded highly on it suggests that in programs evaluated via PASS, as in the psychiatric programs assessed with Moos' (1974) social ecological evaluation approach, relationship elements may form an independent human service dimension.

The second factor analysis (Table 8), performed on the 14 non-redundant aggregated PASS variables, produced a more compact four-factor structure:

Factor I is a normalization-program factor. It accounted for 65 percent of the common variance, and "pulled together" the two important aspects of normalization (interactions and interpretations) conceptualized by the authors of PASS.

Factor II is clearly an administration factor (17 percent of the variance) with the highest loadings for 'Finance', 'Internal administration' and 'Manpower considerations' ('Staff development' and 'Manpower development').

Factor III is a physically integrating service facility factor (9 percent of the variance) with high loadings for 'Physical integration' and facility-related 'Socially integrative interpretations' (composed of 'Program and facility labels', and 'Building perception').

Factor IV is a human science factor, accounting for 8 percent of the variance. Only 'Various' - an aggregated variable formed by summing 'Ties to academia' and 'Research climate', loaded highly on it. This result reflects the failure of 'Ties to academia' and 'Research climate' to correlate as expected with other PASS 2 ratings and admits of at least three possible explanations:

1. The amount of variation in this summated variable, 'Various', is limited, and its distribution is skewed, both of which may contribute to its low (attenuated) correlations with most of the other PASS variables.

2. The variable itself (and its two component ratings) may be sufficiently unreliable as to lower its correlation with other ratings.

3. Or, alternatively, research activities and relationships with academic settings may characterize larger, institution-based programs more than they do small-scale, community programs, at the present time. This third explanation is probably the most important, although none of the three ought to be overlooked in future research.

Differences in Service Quality by Service Type

Tables 9 to 13 present comparative findings of differential service quality, on 18 selected measures of performance. We shall concentrate here on three major indices of overall quality: Total PASS Score, Facility Score, and Program Score.

Table 9 shows that on 17 of the 18 quality measures presented, community services had higher mean scores than institutional services. On the single most important variable, Total PASS Score, community services scored 259, against -158 for institutional services ($t = 4.24$, $p < .001$, one-tailed). This significant difference, along with similar differences found between community and institution services on both Facility Score ($p < .001$) and Program Score ($p < .001$), indicates that PASS 2 discriminates well between these "known groups" and offers evidence supportive of PASS's criterion-related validity.

In Table 10, the quality of services to different age groups is compared.[1] A tendency for service quality to vary inversely with the age of clients emerged: the mean Total PASS Score for young (preschool) children was 294, that for school-aged children and adolescents and for adults was the same (229 and 230), while that for services to the aged was lowest (173). The mean for services to mixed (inappropriately juxtaposed) age groups (202) was somewhat lower than the mean for all age groups (229), as the principle of

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[1] In Tables 10, 11 and 12, tests of significance were not computed for the comparisons of means cited, because of the large number of service types compared, the usually large differences in sub-sample N's involved, the presence of very small N's for several categories of service, and the typically heterogeneous variances found in different service types. The data are presented and discussed as suggestive only, certainly not as conclusive. Hence, here-even more than elsewhere in this study--caveat lector.

TABLE 9

QUALITY OF COMMUNITY VERSUS INSTITUTIONAL SERVICES

DIMENSION OF SERVICE QUALITY	SERVICE TYPE[a]			
	Community (N=93)		Institution (N=6)	
	Mean	(SD)	Mean	(SD)
Ideology	251[b]	(191)	-147	(245)
Normalization-related	190	(181)	-188	(211)
Integration	57	(73)	-75	(40)
Physical integration	42	(43)	-29	(32)
Social integration	14	(42)	-46	(30)
Appropriate interpretations & structures	63	(74)	-45	(79)
Specialization	6	(32)	-33	(41)
Developmental growth orientation	18	(25)	-34	(40)
Quality of setting	47	(30)	-16	(58)
Administration-related	30	(24)	14	(40)
Various	12	(10)	14	(5)
Regional priorities	19	(13)	13	(10)
Administration	10	(61)	-11	(85)
Manpower considerations	5	(15)	2	(21)
Operational effectiveness	5	(52)	-13	(68)
TOTAL PASS SCORE	259	(225)	-158	(318)
Facility score	63	(39)	-8	(40)
Program score	198	(208)	-149	(287)

Notes: a) Undetermined (N=3) omitted

b) All means and standard deviations rounded off in this and subsequent tables

normalization would predict.[1] While merely suggestive, given the non-random, accidental nature of our sample and the very small N's in the preschool children's and aged persons' categories, this inverse relationship between service quality and client age (especially apparent from the Program Score) is consistent with social stereotypes, wherein adult and older handicapped persons are more devalued than handicapped children. The differences by age group served appeared to be particularly strong on the ideological dimensions of 'Normalization-related' and 'Integration'. On 'Administration', on the other hand, services to the aged scored much higher than those to other age groups.

In Table 11, services in different fields are compared. On Total PASS Score, mental health services had a mean score (130), more than 100 points lower than the mean for mental retardation services (239). Services in aging scored second lowest (173), and services in which deviancy groups were juxtaposed had a score (207), somewhat lower than the mean of 229, again as the normalization principle would predict.[2]

Table 12 presents mean scores by service sub-system. Developmental (children's) achieved the highest mean PASS scores (299 and 321 for child development/preschool and school programs, respectively), well above the overall mean of 229. Residential services (222) were near the mean[3], while vocational services were considerably lower (162). Family resource services were both better than average (mean for counselling services, 303) and much worse (mean for recreation and camps, 85). Programs with

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1 & 2

The rationale for avoiding inappropriate age and deviancy juxtapositions of clients (Wolfensberger, 1972; Wolfensberger and Glenn, 1973) is four-fold: (a) juxtapositions are frequently non-normative (i.e. outside the family group, children and adults are almost never mixed in our culture); (b) deviancy juxtapositions often foster the modelling of inappropriate rather than normative behavior; (c) they promote the spread of devaluing rather than enhancing interpretations from one group to another (e.g. when retarded workers are placed with physically handicapped workers, instead of both groups being maximally associated and integrated with non-handicapped workers); and (d) they typically exert administrative and program pressures that lead to relatively "watered-down", unspecialized services that meet the needs of neither group satisfactorily.

3 This overall mean PASS score (222) for the 40 residential programs in the sample masks a very large and important difference between (a) the 35 community residential programs, mean PASS score of +294, and (b) the 5 institutional residential programs, mean score -280. (See Table 12, note d.)

TABLE 10

QUALITY OF SERVICES TO DIFFERENT AGE GROUPS

DIMENSION OF SERVICE QUALITY		AGE GROUP SERVED				
		Preschool Children (N=8)	Schoolaged Children & Adolescents (N=28)	Adults (N=50)	Elderly (N=4)	Mixed Age Groups (N=12)
Ideology	Mean	288	221	221	113	217
	(SD)	(176)	(240)	(221)	(144)	(175)
Normalization-related	Mean	213	166	167	54	142
	(SD)	(193)	(229)	(202)	(126)	(170)
Integration	Mean	71	46	56	-78	36
	(SD)	(86)	(79)	(73)	(41)	(72)
Physical integration	Mean	41	28	47	-25	30
	(SD)	(45)	(54)	(39)	(18)	(48)
Social integration	Mean	29	17	9	-53	6
	(SD)	(64)	(36)	(44)	(27)	(37)
Appropriate interpretations & structures	Mean	86	63	52	81	33
	(SD)	(71)	(87)	(78)	(46)	(66)
Specialization	Mean	15	1	2	0	6
	(SD)	(34)	(32)	(34)	(41)	(33)
Developmental growth orientation	Mean	0	14	16	15	14
	(SD)	(19)	(32)	(29)	(41)	(18)
Quality of setting	Mean	52	39	41	36	52
	(SD)	(20)	(48)	(33)	(26)	(24)
Administration-related	Mean	20	21	30	33	39
	(SD)	(28)	(30)	(24)	(16)	(18)
Various	Mean	13	10	13	13	15
	(SD)	(5)	(13)	(10)	(14)	(8)
Regional priorities	Mean	37	26	11	14	21
	(SD)	(8)	(8)	(11)	(10)	(9)
Administration	Mean	6	7	11	59	-10
	(SD)	(35)	(59)	(62)	(98)	(66)
Manpower considerations	Mean	5	5	4	15	4
	(SD)	(17)	(13)	(18)	(12)	(14)
Operational effectiveness	Mean	1	2	7	45	-14
	(SD)	(28)	(54)	(50)	(86)	(55)
TOTAL PASS SCORE	Mean	294	229	230	173	202
	(SD)	(174)	(265)	(263)	(230)	(221)
Facility score	Mean	52	46	67	27	54
	(SD)	(38)	(44)	(41)	(36)	(46)
Program score	Mean	242	183	165	146	148
	(SD)	(145)	(232)	(240)	(222)	(213)

TABLE 11

QUALITY OF SERVICES IN DIFFERENT HUMAN SERVICE FIELDS

DIMENSION OF SERVICE QUALITY		HUMAN SERVICE FIELD [a]				
		Mental Retardation (N=70)	Mental Health (N=11)	Aging (N=4)	Other Disabilities [b] (N=7)	Juxtaposed Groups [c] (N=6)
Ideology	Mean	234	138	113	235	200
	(SD)	(226)	(228)	(144)	(197)	(86)
Normalization-related	Mean	176	91	54	168	146
	(SD)	(210)	(219)	(126)	(206)	(66)
Integration	Mean	55	44	-78	-3	64
	(SD)	(74)	(71)	(41)	(92)	(42)
Physical integration	Mean	40	30	-25	20	53
	(SD)	(44)	(43)	(18)	(56)	(55)
Social integration	Mean	15	15	-53	-23	11
	(SD)	(41)	(44)	(27)	(51)	(25)
Appropriate interpretations & structures	Mean	56	20	81	91	59
	(SD)	(80)	(88)	(46)	(84)	(32)
Specialization	Mean	3	-6	0	11	-2
	(SD)	(35)	(32)	(41)	(20)	(29)
Developmental growth orientation	Mean	16	4	15	17	3
	(SD)	(28)	(36)	(41)	(16)	(28)
Quality of setting	Mean	46	26	36	51	22
	(SD)	(35)	(50)	(26)	(32)	(26)
Administration-related	Mean	29	18	33	24	24
	(SD)	(25)	(27)	(16)	(35)	(28)
Various	Mean	12	13	13	15	5
	(SD)	(11)	(9)	(14)	(7)	(12)
Regional priorities	Mean	17	16	14	29	26
	(SD)	(12)	(15)	(10)	(8)	(14)
Administration	Mean	7	-8	59	13	7
	(SD)	(63)	(57)	(98)	(45)	(43)
Manpower considerations	Mean	4	7	15	4	4
	(SD)	(16)	(17)	(12)	(16)	(14)
Operational effectiveness	Mean	3	-14	45	8	2
	(SD)	(54)	(43)	(86)	(33)	(38)
TOTAL PASS SCORE	Mean	239	130	173	248	207
	(SD)	(266)	(258)	(230)	(182)	(91)
Facility score	Mean	62	45	27	50	51
	(SD)	(41)	(60)	(36)	(43)	(45)
Program score	Mean	177	98	146	198	156
	(SD)	(241)	(243)	(222)	(145)	(57)

Notes: a) Undetermined and/or Not Applicable (N=4) omitted
b) "Other" includes 3 delinquency service programs, 2 in cerebral palsy, and one each in poverty and physical handicap
c) Programs in which two or more groups of clients with different deviancy-creating conditions (disabilities) are served together. Refers therefore to deviancy juxtaposition services, NOT to services for multiply handicapped clients

TABLE 12

QUALITY OF SERVICES IN DIFFERENT SERVICE SUB-SYSTEMS

DIMENSION OF SERVICE QUALITY		SERVICE SUB-SYSTEM [a]						
		DEVELOPMENTAL SERVICES		RESIDENTIAL	VOCATIONAL	FAMILY RESOURCE SERVICES		MIXED GOALS [c]
		Child Dev & Preschool	School Programs			Counseling [b]	Recreation & Camps	
		(N=10)	(N=13)	(N=40)	(N=22)	(N=4)	(N=4)	(N=7)
Ideology	Mean	287	309	212	162	267	94	219
	(SD)	(165)	(155)	(267)	(167)	(231)	(165)	(173)
Normalization-related	Mean	206	241	167	105	200	32	142
	(SD)	(178)	(153)	(247)	(155)	(211)	(160)	(182)
Integration	Mean	68	58	41	44	78	6	54
	(SD)	(76)	(77)	(87)	(70)	(85)	(40)	(82)
Physical integration	Mean	47	32	32	42	51	22	36
	(SD)	(43)	(55)	(47)	(44)	(70)	(36)	(48)
Social integration	Mean	22	24	8	2	27	-16	18
	(SD)	(59)	(34)	(49)	(36)	(35)	(25)	(41)
Appropriate interpretations & structures	Mean	77	83	72	23	50	-19	31
	(SD)	(69)	(60)	(85)	(63)	(99)	(86)	(68)
Specialization	Mean	11	15	-1	-2	-3	-13	6
	(SD)	(38)	(20)	(37)	(31)	(37)	(25)	(33)
Developmental growth orientation	Mean	3	29	11	17	18	4	10
	(SD)	(19)	(16)	(36)	(24)	(30)	(10)	(23)
Quality of setting	Mean	54	55	42	23	57	54	41
	(SD)	(21)	(28)	(45)	(31)	(14)	(31)	(20)
Administration-related	Mean	28	31	20	32	37	37	38
	(SD)	(29)	(25)	(28)	(21)	(11)	(17)	(20)
Various	Mean	14	12	10	13	17	15	16
	(SD)	(5)	(12)	(11)	(12)	(6)	(6)	(8)
Regional priorities	Mean	35	25	16	13	14	10	22
	(SD)	(9)	(6)	(14)	(9)	(10)	(8)	(6)

(continued next page)

TABLE 12 (continued)

DIMENSION OF SERVICE QUALITY		SERVICE SUB-SYSTEM [a]						
		DEVELOPMENTAL SERVICES		RESIDENTIAL	VOCATIONAL	FAMILY RESOURCE SERVICES		MIXED GOALS [c]
		Child Dev & Preschool	School Programs			Counseling [b]	Recreation & Camps	
		(N=10)	(N=13)	(N=40)	(N=22)	(N=4)	(N=4)	(N=7)
Administration	Mean	13	13	13	0	36	7	-32
	(SD)	(36)	(75)	(64)	(56)	(25)	(24)	(77)
Manpower consideration	Mean	7	6	5	1	17	2	3
	(SD)	(16)	(12)	(19)	(12)	(12)	(3)	(17)
Operational effectiveness	Mean	5	7	8	-1	19	6	-35
	(SD)	(31)	(72)	(52)	(49)	(17)	(24)	(62)
TOTAL PASS SCORE	Mean	299	321	222 [d]	162	303	85	187
	(SD)	(167)	(207)	(305)	(198)	(253)	(162)	(233)
Facility score	Mean	53	57	55	62	55	55	61
	(SD)	(34)	(36)	(48)	(42)	(78)	(43)	(39)
Program score	Mean	246	264	168	106	248	30	126
	(SD)	(143)	(183)	(273)	(176)	(225)	(140)	(222)

Notes: a) Not Applicable (N=2) omitted
b) Counseling includes counseling to families and individuals
c) Service programs overlap two or more service sub-systems
d) Mean TOTAL PASS SCORE for 35 community residential programs = 294; for 5 institutional residences, mean = -280.

mixed goals, which overlapped two or more sub-systems, scored lower than the mean (187), again as expected. All of the observed differences in quality among the service sub-systems came from differences in program, since the Facility Scores were virtually identical.

Comparisons of scores (not shown) between the 98 direct service programs and the four service system evaluations in the sample revealed that the direct services had a mean PASS score of 233, against the 126 for the service systems.[1]

Finally, Table 13 suggests that Canadian services (mean PASS score of 271) may be somewhat better though more variable in quality than U.S. services (mean 202). A t test, however, indicated that this difference could have arisen by chance ($t=1.36$, $p < .20$, two-tailed).

Constructing a "Short Form" of PASS 2

For certain purposes, such as the relatively rapid assessment of a service project, a short form of PASS may prove useful. Mainly for illustrative purposes, an 8-rating short form was derived in the present study, using stepwise regression. This particular short form, based on a small sample and not subjected to cross-validation analysis to test its stability across several samples, should not be interpreted as a reliable substitute for the full, 41-rating PASS 2 instrument.

Several attempts were made, via stepwise regression, to derive the "best" short form--i.e. the one composed of the most "visible" and least complex PASS ratings (to minimize the need for sophisticated rater inferences and thus to maximize inter-rater agreement), that would also be brief and have as high a multiple correlation with Total PASS Score as possible. The 8-rating short form that emerged from the stepwise regression analyses (Table 14) as the best brief instrument combining simplicity of constituent ratings with a high multiple correlation with Total PASS Score was composed of 'Culture-appropriate personal appearance', 'Other deviant contact', 'Building perception', 'Possessions', 'Physical context', 'Environmental beauty', 'Program and facility labels', and 'Physical over-protection'. Together, these 8 ratings had a multiple correlation (R) of .86 with Total PASS Score ($R^2=.74$; $p < .01$). Each of the ratings

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[1]There were actually three service systems assessed; one was evaluated both on its present services and on its future plans, for a total of four evaluations in all.

TABLE 13

QUALITY OF CANADIAN VERSUS AMERICAN SERVICE PROGRAMS

DIMENSION OF SERVICE QUALITY	COUNTRY			
	Canada (N=40)		U.S. (N=62)	
	Mean	(SD)	Mean	(SD)
Ideology	241	(246)	209	(192)
Normalization-related	179	(231)	152	(182)
Integration	51	(85)	44	(74)
Physical integration	32	(50)	39	(45)
Social integration	17	(46)	6	(42)
Appropriate interpretations & structures	65	(83)	51	(74)
Specialization	3	(34)	3	(33)
Developmental growth orientation	16	(31)	13	(27)
Quality of setting	43	(45)	42	(29)
Administration-related	30	(29)	27	(23)
Various	8	(12)	15	(8)
Regional priorities	24	(12)	15	(12)
Administration	31	(50)	-5	(64)
Manpower considerations	5	(13)	5	(17)
Operational effectiveness	26	(43)	-10	(53)
TOTAL PASS SCORE	271	(276)	202	(228)
Facility score	56	(47)	58	(41)
Program score	216	(241)	146	(212)

TABLE 14

DERIVATION OF PASS II "SHORT FORM" VIA STEPWISE REGRESSION [a]

PASS II RATING	R	R^2	Increase in R^2	F	p
Culture-app personal appearance	.67	.45	.45	77.9	.01
Other deviant contact	.74	.54	.10	56.8	.01
*Building perception	.79	.62	.08	51.2	.01
Possessions	.81	.66	.04	44.7	.01
*Physical context	.83	.69	.04	41.7	.01
*Environmental beauty	.84	.71	.02	37.5	.01
Program & facility labels	.85	.73	.02	34.3	.01
*Physical overprotection	.86	.74	.01	31.2	.01

Constant: 67.5
Standard error: 134.7

[a] Illustrative purposes only

Prediction equation:

TOTAL PASS SCORE = 67.5 + 5.02 (Culture-appropriate personal appearance)
+ 3.75 (Other deviant contact)
+ 2.39 (Building perception)
+ 6.14 (Possessions)
+ 3.14 (Physical context)
+ 4.01 (Environmental beauty)
+ 3.53 (Program & facility labels)
+ 4.97 (Physical overprotection)

involved had a zero-order correlation of .40 or higher with Total PASS Score. All are fairly visible, easily identified service aspects (four of the seven facility-related ratings were selected by the stepwise regression), and all added at least one percent to the amount of variance explained in Total PASS Score.

The particular short form derived in this study is not ideal, as the rather large standard error of estimate (typical error in prediction) attests. Nevertheless, these results do suggest that a short form of PASS 3 will be feasible. To derive one, however, large samples will be essential. Techniques such as stepwise regression capitalize on the characteristics peculiar to any sample, and prediction equations based on them usually show a good deal of shrinkage when applied to other samples. Hence, extensive cross-validation analyses (Norman, 1965) will be required to construct an optimally stable and reliable PASS 3 short form. The latter should not replace the full 50-rating instrument, particularly when important policy decisions (e.g. regarding funding) about an individual program are to be made. It could be very useful, however, for training purposes, for quick evaluations of several services in a short time span, for periodic "spot-checks" on services, etc.

DISCUSSION AND RESEARCH NEEDS

Overall, the results of this study are strongly encouraging. The psychometric properties of PASS 2 appear, with minor expections, to be very good; the (to date, limited) reliability data are encouraging; and the many inter-service comparisons made possible through PASS suggest both that the instrument has concurrent, criterion-related validity (as evidenced, for example, by its ability to differentiate efficiently between community and institutional services) and that it permits highly focused contrasts to be drawn, on a wide range of service quality dimensions, between services to different age groups, in different human service fields, in different service sub-systems, and in different countries. The ratings were found to be correlated with one another very much as expected, the non-linear, a prioristically derived scoring system appears to pose no special problems for statistical analyses, and the ability of empirical study of the instrument to contribute to its improvement and refinement was demonstrated.

Perhaps the most impressive general conclusion to emerge from this study, aside from the finding that human services are on the average of only modest quality, is that the empirical

findings almost without exception support the prior conceptualization underlying PASS's constituent elements. This in no way, however, obviates the need for future well-planned and well-conducted research on PASS, especially in regard to the instrument's reliability and concurrent and construct validity.

Research Needs

It appears that the potential range of PASS-related research, both on the instrument itself and on issues of human service quality, is very broad. The comments that follow are intended to suggest some outstanding needs at the present time. They should be taken as suggestive only and hardly as exhaustive.

1. The present study has shown that improvements in PASS are facilitated by the systematic collection of data from PASS evaluations. It is thus of utmost importance that users of PASS 3 send a xerox copy of every (team conciliated) completed score sheet to the senior author of PASS[1]. In addition to the score sheet (which must contain no missing scores, if it is to be useful), PASS 3 raters should also send an attached "agency background data sheet", on which the following information should appear:

a. Name of service and agency (appropriately disguised, where confidentiality is an issue); city/town and province/state; year program and agency started.

b. Date of evaluation; team leader and team members; context of evaluation (mandated by funding agency; invited by agency; introductory or advanced PASS training workshop).

c. Description of program: major focus (foci) e.g. vocational services centre; integrated preschool program; segregated school class for trainable retarded children; mixed; etc.

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[1] Completed team-conciliated PASS 3 score sheets and attached agency background data sheets should be sent to:

Dr. Wolf Wolfensberger
Director
The Training Institute for Human Service
Planning, Leadership and Change Agentry
Syracuse University
805 South Crouse Avenue
Syracuse, New York 13210

d. Clientele: type(s) by handicapping condition served (e.g. severely physically disabled, mildly mentally retarded, aged, poor, blind, two or more juxtaposed deviancy groupings, etc.); age group(s) served; sex; average number of clients served by program at time of evaluation.

e. Staff: number of staff in different positions; total number; average length of time each has been with agency; number of staff with college degrees; age; sex.

f. Total agency budget; total program budget; auspices (public, quasi-public, or private/voluntary agency); number of new programs initiated by agency in last 5 years.

The systematic collection of this agency background data will permit unambiguous classification and coding of services, will greatly enhance the drawing of inter-service comparisons, and permit the progressive identification of the agency correlates of service quality. When a large sample of PASS 3 evaluations has been accumulated, it will become possible through multivariate techniques such as regression analysis to study the relative importance for service quality of factors such as community versus institutional location, highly-credentialed versus less "professional" staff, absolute program (clients and staff) size, type of clients served, age group served, length of time program has been in operation, etc.

2. Much more information is required on the reliability of PASS. Several approaches are possible. Perhaps the most elegant is the 4-way analysis of variance design suggested by Medley and Mitzel (1963), in which a single analysis of variance would yield estimates of reliability based on the components of PASS score variance due to x human service programs being rated on 50 PASS 3 items by y PASS rater teams at z times. Medly and Mitzel (1963: pp. 312-321) propose several useful rules of thumb for adapting the general 4-way ANOVA design to any particular study.

The reliability of PASS can also be studied in other, less inclusive ways. For example, inter-team (as well as inter-rater) reliability could be examined in a very cost-beneficial manner through the use of videotape. The same standardized stimulus (PASS visit) could be presented to a large number of raters and rater teams, allowing the collection of much data at little cost.

3. Team composition has an as yet unknown influence on the reliability and validity of PASS scores. The use of videotaped evaluations would allow systematic variation in team composition (small, medium, and large-sized teams; experienced versus inexperienced raters; consumers versus service workers; etc.) to be investigated at low cost. Furthermore, the tendency of raters to agree more with some (e.g. experienced) team members than with others could be determined easily by examining the patterning of pairwise correlations among team members.

4. Research should be conducted on the PASS training process. It is quite possible that factors such as audience (persons wanting to become full-time PASS evaluators; service leaders and administrators primarily interested in using PASS to improve services; direct service workers; consumers and parents), workshop length, workshop content, and pedagogy used interact to produce differential gains in learning PASS and normalization. Analysis of variance techniques would permit these issues to be studied with precision.

5. The construct and concurrent validity of PASS will be a complex topic for investigation, but a very important one. PASS assesses program and service system questions that impinge on both "clinical" and social interpretational, and short-term and long-term, outcomes. It will be of considerable importance that research on service outcome orient itself to the full range of outcomes deemed important by PASS, and not simply to the relatively short-term clinical gains registered by individual clients, which has been the focus of study of most human service evaluation research to date.

The investigator interested in validity-related PASS research will profit from a reading of Moos (1974). Some interesting comparative studies between PASS and Moos' "social ecological" evaluation method would be possible and perhaps informative, at least in the field of mental health and psychiatric services.

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[1]The approach developed by Moos and his colleagues to assess hospital-based and community-based psychiatric programs bears some interesting conceptual parallels to PASS. The instruments discussed in Moos (1974) measure three principal characteristics of treatment environments: Relationship Dimensions (Involvement; Support; Spontaneity), Treatment Program Dimensions (Autonomy; Practical Orientation; Personal Problem Orientation; Anger and Aggression), and System Maintenance Dimensions (Order and Organization; Program Clarity; Staff Control). There are some major differences, however, between the two approaches. PASS is based on a prior more theoretical and explicitly articulated

(Footnote 1 continued, p. 43)

6. A major purpose of any PASS evaluation, especially one done at the request of an agency, is to produce improvement in service performance. The effectiveness of PASS in bringing about such improvement, and the most powerful means of doing so (e.g. change efforts directed at the particular management model used; staff development seminars; attempts to improve agency administrative structures and control; workshops for staff, volunteers, and board members together; etc.) should be examined thoroughly. Longitudinal studies of service programs should be significantly simplified by the knowledge (Moos, 1974) that without planned intervention, program profiles in hospital and community settings show a remarkable stability over time.

7. It is probable that agency organizational characteristics exert an influence on service quality and potential program improvement that is somewhat independent of the particular staff members who happen to be working in the agency at a given point in time. The following organizational properties (Hage and Aiken, 1970) bear investigation, to determine their relationship with service performance: agency and departmental size; budget; professionalism and specialization of personnel; centralization of power and decision-making; degree of stratification among categories of staff; rule formalization; agency dynamism (as measured, for example, by the number of new programs introduced within the last five years); and the extent of organizational interdependence with other service agencies.

(Footnote 1 continued)

...conceptualization, especially the principle of normalization. Also, whereas PASS is applied by a team of external evaluators, Moos' social ecological method depends largely on data gathered via forms (Ward Atmosphere Scale, or Community-Oriented Programs Environment Scale) filled in by both clients and staff. Whatever its merits in studying some service programs, this data collection strategy entails some limitations (caused by the age and degree of impairment of clients) when applied to other types of services:

> Often a certain proportion of patients either cannot or will not complete the scale. The proportion varies a good deal on different wards; usually, however, an average of about 75 percent of patients are willing and able to adequately take the test. Exceptions to this are found on geriatric wards and on chronic "back" wards in state hospitals, where the proportion of patients able to complete the test is usually below 50 percent. Most mentally retarded patients cannot answer the items adequately. Thus, patient perceptions of treatment program environment cannot be properly assessed on these types of wards. Staff and/or observers can, of course, be utilized. (Moos, 1974, p.48).

8. The relationship of the 10-item facility index in PASS 3 to other standardized environmental and/or architectural measurement devices could be profitably explored.

9. As was previously noted, a short form of PASS 3 might prove very useful for certain training and evaluation purposes.

10. Finally, PASS research would profit from the convening of a special conference, within the next year or so, of persons interested in carrying out empirical work on and with PASS. A specialized research conference would doubtless add many more suggestions to the ideas mentioned here.

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APPENDIX

PASS 2 CHECKLIST (ORANGE)

&

PASS 2 SCORE SHEET (BLUE)

Program Analysis of Service Systems

PASS/FUNDET CHECKLIST

PASS ELEMENTS	LEVELS
Physical integration	
*R11111 Proximity	1 2 3 4
*R11112 Access	1 2 3 4
*R11113 Physical context	1 2 3 4
R11114 Size or dispersal	1 2 3 4
Socially integrative interpretations	
R111211 Program and facility labels	1 2 3 4
*R111212 Building perception	1 2 3 4
Socially integrative program structures	
R111221 Deviant staff contact	1 2 3 4
R111222 Other deviant contact	1 2 3 4
R111223 Socially integrative social opportunities	1 2 3 4 5 6
Age-appropriate interpretations and structures	
*R11211 Facilities, environmental design and appointments	1 2 3 4
R11212 Possessions	1 2 3 4
R11213 Labels and forms of address	1 2 3 4 5
R11214 Activities, routines and rhythms	1 2 3 4
R11215 Autonomy and rights	1 2 3 4
R11216 Sex bahaviour	1 2 3 4
R11217 Personal appearance	1 2 3 4
Culture-appropriate interpretations and structures	
R11221 Labels and forms of address	1 2 3 4 5
R11222 Personal appearance	1 2 3 4
R113 Specialization	1 2 3 4

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PASS ELEMENTS

	LEVELS					
Developmental growth orientation						
*R1141 Physical overprotection	1	2	3	4		
R1142 Social overprotection	1	2	3	4		
R1143 Intensity of relevant programming	1	2	3	4		
Quality of setting						
R1151 Physical comfort	1	2	3	4		
*R1152 Environmental beauty	1	2	3	4		
R1153 Individualization	1	2	3	4	5	
R1154 Interactions	1	2	3	4		
Administration-related ratings						
R121 Comprehensiveness	1	2	3	4	5	6
R122 Utilization of generic services	1	2	3	4	5	
R123 Consumer and public participation	1	2	3	4		
R124 Innovativeness	1	2	3	4	5	
Various						
R131 Ties to academia	1	2	3	4		
R132 Research climate	1	2	3	4		
Regional priorities						
R141 Deinstitutionalization	1	2	3	4		
R142 Age group priorities	1	2	3	4		
Manpower considerations						
R211 Staff development	1	2	3	4		
R212 Manpower development	1	2	3	4	5	
Internal administration						
R2211 Administrative control and structures	1	2	3	4		
R2212 Planning process	1	2	3	4		
R2213 Program evaluation and change	1	2	3	4		
Finance						
R2221 Budget realism	1	2	3	4		
R2222 Budget economy	1	2	3	4		

Program Analysis of Service Systems

Score Sheet

Date: **Project Being Rated:**

Name of Rater or Scorer:

Use (circle one): Project, Master, or Master Agency Score Sheet

PASS Rating Elements		Scores
1 Ideology		840
11 Normalization-related		670
111 Integration		225
1111 Physical integration		95
*R11111 Proximity	−30, 0, 24, 30	
*R11112 Access	−8, 0, 8, 10	
*R11113 Physical context	−16, 0, 16, 20	
R11114 Size or dispersal	−35, 0, 28, 35	
1112 Social Integration		130
11121 Socially integrative interpretations		40
R111211 Program & facility labels	−20, 0, 16, 20	
*R111212 Building perception	−16, 0, 16, 20	
11122 Socially integrative program structures		90
R111221 Deviant staff contact	−30, 0, 24, 30	
R111222 Other deviant contact	−30, 0, 24, 30	
R111223 Socially integrative social opportunities	−30, −18, 0, 18, 24, 30	
112 Appropriate interpretations & structures		225
1121 Age-appropriate interpretations & structures		165
*R11211 Facilities, environmental design & appointments	−12, 0, 12, 15	
R11212 Possessions	−16, 0, 16, 20	
R11213 Labels & forms of address	−12, −8, 0, 16, 20	
R11214 Activities, routines & rhythms	−30, 0, 24, 30	
R11215 Autonomy & rights	−35, 0, 21, 35	
R11216 Sex behavior	−20, 0, 16, 20	
R11217 Personal appearance	−25, −10, 0, 25	
1122 Culture-appropriate interpretations & structures		60
R11221 Labels & forms of address	−30, −12, 0, 24, 30	
R11222 Personal appearance	−30, 0, 18, 30	
R113 Specialization	−50, 0, 40, 50	50
114 Developmental growth orientation		65
*R1141 Physical overprotection	−12, 0, 12, 15	
R1142 Social overprotection	−12, 0, 12, 15	
R1143 Intensity of relevant programming	−35, 0, 21, 35	
115 Quality of setting		105
R1151 Physical comfort	−25, 0, 20, 25	
*R1152 Environmental beauty	−16, 0, 16, 20	
R1153 Individualization	−35, 0, 21, 28, 35	
R1154 Interactions	−25, 0, 20, 25	

12 Administration-related			100	
R121 Comprehensiveness	0,	5, 12, 16, 18, 20		
R122 Utilization of generic services	−16,	0, 12, 16, 20		
R123 Consumer & public participation	−30,	0, 24, 30		
R124 Innovativeness	0,	8, 18, 24, 30		
13 Various			25	
R131 Ties to academia	−15,	0, 12, 15		
R132 Research climate	−10,	0, 8, 10		
14 Regional priorities			45	
R141 Deinstitutionalization	0,	5, 16, 20		
R142 Age group priorities	0,	8, 20, 25		
2 Administration			160	
21 Manpower considerations			35	
R211 Staff development	−20,	0, 20, 25		
R212 Manpower development	−10,	0, 6, 8, 10		
22 Operational effectiveness			125	
221 Internal administration			80	
R2211 Administrative control & structures	−20,	0, 20, 25		
R2212 Planning process	−20,	0, 16, 20		
R2213 Program evaluation & change	−28,	0, 28, 35		
222 Finance			45	
R2221 Budget realism	−15,	0, 12, 15		
R2222 Budget economy	−30,	0, 24, 30		
TOTAL PASS SCORE			1000	

Facility and Program Scores

Total PASS Score :

Facility Score (Total weights obtained on Asterisk Ratings):

Program Score (Total PASS Score minus Facility Score) :

R denotes that the element is a rating, and the asterisks identify the ratings which make up the facility score. This numbering system affords rapid access to and cross-referencing between narrative, rating criteria, tables, score sheets, etc.

FACILITY SCORE

*R11111	
*R11112	
*R11113	
*R111212	
*R11211	
*R1141	
*R1152	

Total Facility Score:

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pass 3

A method for the quantitative evaluation of human services

Program **A**nalysis of **S**ervice **S**ystems

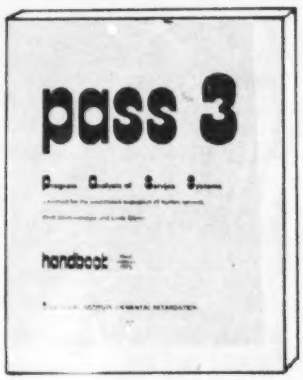
Wolf Wolfensberger and Linda Glenn

As concern for accountability in human service delivery increases, governmental bodies, human service providers and recipients, and the general public are becoming more interested in methods of assessing the quality of service delivered by agencies and service systems. PASS (Program Analysis of Service Systems) is an evaluation method which can quantitatively assess service and program quality and identify the major strengths and weaknesses which characterize a human service or service system.

PASS is based upon a number of ideologies or value systems, among which the most important is the principle of normalization. PASS "breaks down" the normalization principle into its practical implications to service delivery, and these are outlined broadly enough to make PASS equally applicable to practically any type of service (family support, educational, residential, vocational, counselling, etc.) and to any group of handicapped or disadvantaged people (elderly, emotionally disturbed, physically or mentally handicapped, etc.)

A companion "instrument", called Funding Determination or FUNDET, is also included. It is designed to determine if the funding of a service is justified. Both PASS and FUNDET are applied by a team of trained raters who rely on examinations of documents, site visits, interviews, and a group concensus process for their assessment results.

The rationales, structures, and scoring systems of PASS and FUNDET are outlined in **Handbook** (Volume 1), which also contains detailed instructions and materials for raters and organizers of PASS training workshops. **Field Manual** (Volume 2) contains the elements needed by raters in conducting assessments. While several people could share a copy of the **Handbook**, each rater needs a copy of the **Field Manual**. One copy each of the needed PASS and FUNDET checklists and score sheets (published separately) are bound into the **Handbook**.



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THE DIFFERENCES BETWEEN PASS 3 AND PASS 2,

or

WHY YOU SHOULD HAVE THE THIRD EDITION WHEN YOU ALREADY OWN THE SECOND!

A limited number of the First Edition of PASS (PASS 1) was issued in Nebraska in 1969, and was applied and researched only in that state. The Second Edition (PASS 2), published by NIMR in 1973, has been studied by thousands of North Americans, and has been applied extensively in Canada and the United States in assessing the quality of a wide variety of human services. A limited amount of research has been and still is being conducted on PASS 2.

Just as one could say that from PASS 1 to PASS 2 there was an essential or a qualitative change, it would be most correct to say that PASS 3 represents a primarily **quantitative** change from PASS 2. In other words, there is more of it.

However, the differences are not only of quantity, but reflect considerable refinement of concepts as well as the technical changes indicated by the extensive field testing of and research on PASS 2. PASS 3 renders PASS 2 "obsolete", just as PASS 2 replaced the need for PASS 1.

More specifically, the changes from PASS 2 to PASS 3 include the following:

- There are 50 ratings in PASS 3 (41 in PASS 2), and 12 in FUNDET 3 (8 in FUNDET 2).
- A few PASS 2 ratings have been further subdivided, to more clearly separate different issues. A few completely new ratings have been added, and some PASS 2 ratings have changed their names.
- The total possible positive score remains at +1000, but the lowest attainable score is now −947 (−849 in PASS 2).
- Gaps between levels on many ratings have been eliminated.
- The **Handbook** has doubled in size, and provides considerably more guidance for PASS raters, team leaders, report writers, and trainers involved in serious evaluations and in training workshops. The **Handbook** also reports some of the research findings on PASS 2, and discusses some of the major recurring criticisms of the techniques.

Many people who learned how to use PASS 2 in PASS training workshops will feel comfortable with PASS 3 after thorough study of the new **Handbook** and **Field Manual**. Others will prefer a "refresher" course in PASS 3, at either the introductory or advanced level. Either of the authors or the NIMR may be contacted for information about participating in or organizing PASS 3 training workshops.

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